MYRMECIA

News Bulletin of the Australian Entomological Society Inc.
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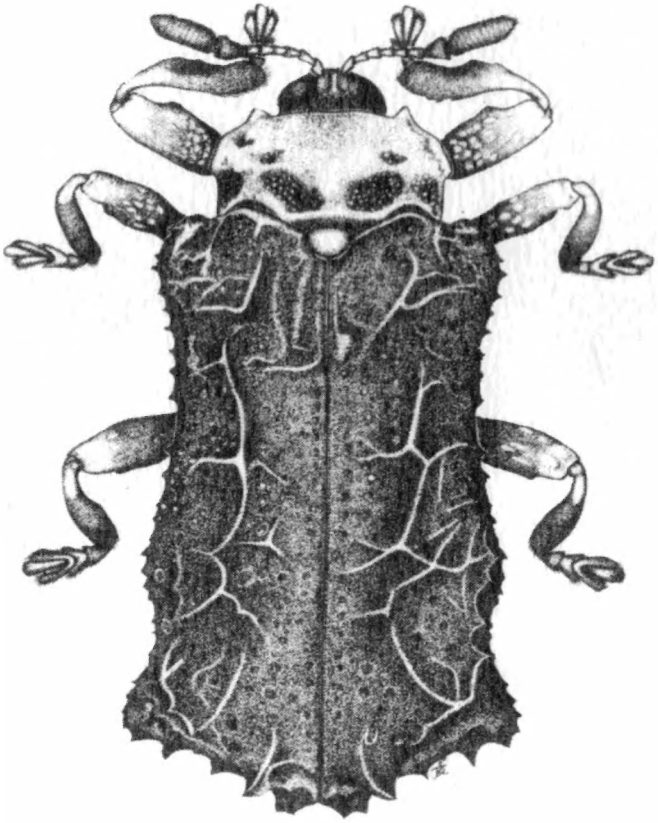

MYRMECIA

CONTENTS

Executive Report 2
Council for 1996-97 3
Annual Report of the Executive 1996 4
Treasurer's Report 1996 7
Chief Editor's Report 12
News Bulletin Editor's Report 12
Conservation Committee Report 13
Competition Winners 14
1996 Ian Mackerras Medal 15
AES/NZES Conference Report 16
Obituaries
Paul N. Forte 21
Arthur Woods 22
BCRI Rydalmere 23
Ohio State Acarology Course Report 24
Regional News
Australian Capital Territory 26
New South Wales 27
Winning Illustrations/Photographs 29
Regional News (cont'd)
Northern Territory 37
Queensland 39
South Australia 45
Tasmania 47
Victoria 48
Overseas News 49
News from Affiliated Societies 49
FASTS News 50
Electronic News 52
Coming Events 52
New Publications 56
Book Reviews 56
Notices 58
1996 Postgraduate Project List Pt 2 61
Membership Appl. Form . . inside back cover

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COPY DEADLINE FOR NEXT ISSUE

Material for publication in the February 1997 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Friday 24 January 1997**. Submissions to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.

ALL CONTRIBUTORS PLEASE NOTE - THE EDITOR OF THIS ESTEEMED PUBLICATION WILL BE MOVING TO LOVELY DOWNTOWN ORANGE IN JANUARY 1997. CONTRIBUTIONS TO THE BULLETIN SENT VIA EMAIL WILL NOT BE AFFECTED BUT CONTRIBUTORS USING FAX OR SNAILMAIL WILL NEED TO NOTE A CHANGE OF ADDRESS:

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Email: fletchm@agric.nsw.gov.au

EXECUTIVE REPORT

MEETINGS

The Core Executive met on 4 September, 14 October and 28 October 1996.

NEW MEMBERS

Elected 14 October 1996

Dr BW CRIBB, Department of Entomology, The University of Queensland, St Lucia, Qld 4072. (Full Member). Bronwen is a Research Fellow at the Centre for Microscopy & Microanalysis and an Adjunct Lecturer with the Department of

EXECUTIVE REPORT

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Dr BW CRIBB, Department of Entomology, The University of Queensland, St Lucia, Qld 4072. (Full Member). Bronwen is a Research Fellow at the Centre for Microscopy & Microanalysis and an Adjunct Lecturer with the Department of Entomology, University of Queensland. She is most interested in insect behaviour, ultrastructure and chemoreception.

Ms CL EDWARD, PM Technologies P/L, PO Box 560, Hurstbridge, Vic 3099 (Full Member).

Ms H HAHRUNG, The Alan Fletcher Research Station, Qld Dept Natural Resources, 27 Magazine St, Sherwood, Qld 4075. (Email: nahrunh@citcc.qld.gov.au) (Full Member). Helen has a B.Sc. in Entomology from The University of Queensland and is studying egg diapause in Chrysomelidae for her Honours (part-time) while rearing and studying biocontrol agents of weeds for the Department of Natural Resources at The Alan Fletcher Research Station.

Mr A LOCH, Department of Entomology, The University of Queensland, St Lucia 4072 Qld (Email: s322913@student.uq.edu.au) (Student Member). Andrew received a First Class B.Sc. (Honours) in Entomology from The University of Queensland for his study of pink wax scales and has recently begun his doctoral research on alternative hosts of *Trissolcus basalis*, an egg parasitoid of the infamous GVB.

Ms R TEO, Dept Zoology, James Cook University, Townsville, Qld 48111 (Email: regina.teo@jcu.edu.au) (Student Member)

Mr S CATESBY, 20 Barton Road, Gympie, Qld 4570 (Email: catesbs@qfh1.fh.dpi.qld.gov.au) (Student Member). Simon has a B.Sc. (Honours) and has recently begun his doctoral studies on the use of soil invertebrates as indicators of soil compaction. Simon is stationed at QDPI in Gympie, but registered at Griffith University, and spends many hours on the road.

Change of Address, Status or Title

Ms A. Annells, Agriculture Western Australia, Frank Wise Institute for Tropical Research, Durack Drive (PO Box 19), Kununurra WA 6743 (ex WA).

Mrs LC GRBIN, CRC for Tropical Pest Management, University of Queensland, Brisbane, QLD 4072 (ex SA)

Mr DJ JACKMAN, 23 Gorge Rd, Paradise, SA 5074 (change of address)

Ms J KENT, c/o PO Box 367, Mylor SA 5153 (change of address)

Dr MA KELLER, Department of Crop Protection, University of Adelaide, Waite Campus, Private Bag 1, Glen Osmond, South Australia 5064 (change of address)

Prof A RAMAN, 3/40 Cunningham St, Dubbo, NSW 2830 (ex India)

Dr DJ RAE, School of Horticulture, University of Western Sydney, Hawkesbury, Bourke Street, Richmond NSW 2753 (change of address)

Dr MJ STEINBAUER, CSIRO Division of Entomology, c/o Tropical Ecosystems, Research Centre, McMillans Rd, Berrimah, PMB 44, Winnellie, Darwin, NT 0821 (change of title and address) (ex Tas)

Dr S WENTWORTH, 1 Pampero Court, Mooroolbark Vic 3138 (ex Vic.)
Email S.wentworth@latrobe.edu.au

Dr G. Williams (change of title)

Dr C WILSON, PO Box 496 Palmerston, NT 0831 (ex NT)

Dr D EWART, Granitgard Pty Ltd, CSIRO F & FP, Private Bag 10, Clayton South MDC, CLAYTON VIC 3169 (ex Vic)

Dr A GREEN, 3 Stewart Str, Launceston TAS 7250 (ex Tas)

Dr G McDONALD, Institute for Integrated Agricultural Development, PO Box 1145, RUTHERGLEN VIC 3685 (ex Vic)

Resignations from membership

(received with regret)

Mr MA HEAP (Vic.)

FROM MINUTES OF THE CORE EXECUTIVE

Membership in the Society has been declining slowly, but steadily, for a number of years. The proportion of deadbeats not paying their dues has also increased. Additionally, the cost of producing the *Australian Journal of Entomology* has risen dramatically while Journal income has decreased. At the last AGM, these issues were raised and, after some discussion, dues were increased in the hopes of avoiding an immediate financial crisis.

However, we realise that this is not the optimal solution. The new Executive has agreed to do what it can to seek new members, to convince non-financial members to pay up, to see what can be done to revitalise the Journal, and to investigate alternative means of raising funds.

At the first Core Executive Meeting, the new Executive (including **Peter Allsopp**, the Editor of the Journal) discussed a number of possible improvements to the Journal. One suggestion that is being actively pursued it to seek mini-reviews or focus articles from distinguished entomologists for each issue. Another suggestion likely to be implemented is to organise articles into sections to demonstrate breadth of material printed in *AJE* and to facilitate finding and reading of articles of interest. Also, it was agreed that an expanded Editorial Board would be useful.

Seeking additional sources of funding is another means of helping to balance the budget. **John Jennings**' offer to take on the Promotions Officer position (Assistant Business Manager) was gratefully accepted with proviso that John maintain close contact with Core Executive and seek our approval before undertaking a promotion. In addition to John, altruism struck two other members of the Society. **Francoise Berlandier** from the WA Department of Agriculture has agreed to be the regional councillor from WA and, on the recommendation of the Secretary, Dr **Heather Proctor** was appointed Assistant Secretary. Welcome to all three.

At the recent joint AES-New Zealand Entomological Society joint meeting at Lincoln University, **Rowan Emberson** suggested that the NZES would be interested in a regular joint meeting, perhaps on a three year basis. The outgoing Executive and the members at the AGM were quite supportive of this idea, and the new Executive agrees that joint meetings are desirable and that every three years is reasonable. Perhaps this new relationship with the NZES will be the first of a series of stronger interactions with entomological societies in the Australasian and Pacific regions.

A new web page for the Society is under construction at UQ and can be accessed through the UQ Entomology home page. Included is a history of the Society, benefits accruing from membership, a list of the officers and Nomination and Student Concession forms that can be downloaded.

The 28th AGM will be held in Melbourne. **Mark Smith** (041 225 4775), **Robin Coy, Nancy Endersby** and **Fiona Clissold** have formed a committee to organise the next AGM. They've had a preliminary meeting with **Tim New, Alan Yen** and **Paul Horne** and are trying for 28 Sept - 3 Oct 1997 at Melbourne University.

Dr DE WALTER
Honorary Secretary

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

Composition of the Council for 1996/97

Officers

President	Prof. RL Kitching
Vice President	Assoc. Prof. MP Zalucki
Secretary	Dr DE Walter
Treasurer	Ms VA Brancatini
Public Officer	Dr ID Naumann
Chief Editor	Dr PG Allsopp
Business Manager	Ms AME Roach
News Bulletin Editor	Dr MJ Fletcher
Immediate Past President	Prof. RE Jones

Regional Councillors

Australian Capital Territory	Dr GV Maynard
	Dr M. Matthews
New South Wales	Mr SL Doggett
	Dr GM Gurr
	Mr JH Hawking
Northern Territory	Mr G Bellis
Queensland	Dr C Reid
	Dr T Withers
	Mr IR Kay
South Australia	Dr MA Keller
	Dr GS Taylor
Tasmania	Dr AR Clarke
Victoria	Ms NM Endersby
	Dr R Coy
Western Australia	Dr F. Berlandier

Representative Councillors

Ent. Soc. Queensland	Dr J. King
Ent. Soc. NSW	Dr AD Clift
Ent. Soc. Vic.	Mr R MacPherson

Technical Editors

	Dr AN Andersen
	Dr AL Bishop

	Mr KL Walker
	Dr AJ Wapshere

Executive Appointments

Assistant Secretary	Dr H. Proctor
Assistant Treasurer	(vacant)
Assistant Business Manager	(vacant)
Editorial Assistant	Mrs J. Allsopp
Assistant News Bulletin Editor	Mr JA Macdonald

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC ANNUAL REPORT 1996

The Executive is pleased to present the Society's Twenty Seventh Annual Report for the period October 1995 to August 1996.

EXECUTIVE SUMMARY

Executive Meetings

The Executive, together with the Assistant Secretary and the SA Regional Councillors, held nine meetings from October 1995 to August 1996.

Officers, Executives and Executive Appointments

Executive Officers

President	Prof. R.E. Jones
Vice President	Dr P.G. Allen
Secretary	Dr G.S. Taylor
Treasurer	Mr J.T. Jennings
Public Officer	Dr I.D. Naumann
Chief Editor	Dr P.G. Allsopp
Business Manager	Ms A.M.E. Roach
News Bulletin Editor	Dr M.J. Fletcher
Immediate Past President	Dr G.H.S. Hooper

Other Councillors

Technical Editors	Dr A.N. Andersen
	Dr A.L. Bishop
	Dr I.D. Naumann
	Dr A.J. Wapshere

Regional Councillors

Queensland	Dr T.A. Heard
	Dr C. Reid
	Mr G.B. Simpson
New South Wales	Mr S.L. Doggett
	Mr J.H. Hawking
	Ms L. Rodgerson
Victoria	Dr R. Coy
	Ms N.M. Endersby
South Australia	Mr W.E. Frost
	Dr M.A. Keller
Western Australia	Dr D.F. Cook
Tasmania	Mr R. Bashford
ACT	Dr G.V. Maynard
	(vacant)
Northern Territory	Mr C.G. Wilson

Representative Councillors

Ent. Soc. Queensland	Dr J. King
Ent. Soc. NSW	Dr A.D. Clift
Ent. Soc. Victoria	Mr P. Carwardine

Executive Appointments

Assistant Secretary	Dr P.T. Bailey
Assistant Treasurer	(vacant)
Assistant Business Manager	(vacant
Editorial Assistant	Mrs J. Allsopp
Assistant to News Bulletin Editor	Mr J.A. Macdonald

Overseas Correspondents

New Zealand	Mr J. Tenquist
Papua New Guinea	Prof. R. Kumar
Hong Kong	Dr M.W.J. Crossland

Conservation Committee

Convenor A/Prof. J. Majer (WA)

Members: Dr T. New (Vic), Dr R. Coy (Vic), Dr P. Horne (Vic), Dr G. Friend (WA), Dr E.G. Matthews (SA), Dr A.N. Andersen (NT), Mr P. Dostine (NT), Ms G. Carruthers (ACT), Dr R.V. Gunning (NSW), Mr G. Williams (NSW)

Editorial Board

Dr I. Abbott, Dr P.T. Bailey, Dr W.J. Bailey, Dr B.K. Cantrell, Dr B.R. Champ, Dr M.J. Fletcher, A/Prof. D.F. Hales, A/Prof. F.J.D. McDonald, Dr R.C. Russell, Dr T.C.R. White.

27th AGM Organising Committee (Christchurch, New Zealand

Convenor	Dr R. Emberson
Secretariat	Ms J. King
AES Coordinators (Scientific Program)	Dr D. Dall
	Dr M.J. Fletcher

28th AGM Organising Committee

to be reported at AGM

Honorary Members
Dr B.R. Champ, Dr I.F.B. Common, Dr E.N. Marks, Dr K.R. Norris, Dr C.N. Smithers, Dr D.F. Waterhouse.

Mackerras Medallists
Dr J.A.L. Watson (1984), Dr R.W. Sutherst (1986), Dr T.R. New (1988), Dr R.A.I. Drew (1990), Dr E.S. Nielsen (1992)

Sustaining Associates
Australian Entomological Supplies
Ciba-Geigy Ltd
Cyanamid Australia Pty Ltd
Dow Elanco (Aust) Ltd
Hoechst-Schering AgrEvo Pty Ltd

Membership
Membership of the Society as at 31 July 1996 comprised:

Full Members	589
Student Members	100
Retired Members	90
Joint Members	9
Honorary Members	6
Affiliated Societies	3
Sustaining Associates	5
TOTAL	802

In addition, there are 12 persons who receive the News Bulletin only.

The Executive recorded with regret the deaths of:
Dr Elaine BROUGH
Mr Paul N. FORTE

Australian Entomological Society Research Grants
The Executive is pleased to announce that the following Research Grants were awarded:

Dr Michael CALVER: A search for new species of phorids (Diptera: Phoridae) in south-western Australia ($500)
Dr Terry HOUSTON: A taxonomic revision of the spoon-winged lacewings ($700)
Ms Margaret HUMPHREY: Biology and systematics of the genus *Corasoides*, the platform weaving spider ($380)
Ms Danuta KNIHINICKI: Aspects of the taxonomy, biology and ecology of phytophagous Eriophyioidea (Acarina: Prostigmata) associated with native tea-trees, *Melaleuca* spp. ($700)
Dr Jon MARTIN: Molecular relationships in the ancient chironomid genus *Archaeochlus* Brundin ($650)

The Phil Carne Prize
The Phil Carne Prize is awarded by the Society to encourage excellence in entomological research and publication by entomological students who have not gained their PhD. The Executive congratulates **Lindsay BAGGEN**, Orange Agricultural College, University of Sydney, Orange, NSW, for his winning paper entitled "Seeking the right kind of diversity: enhancing parasitism of potato moth by *Copidosoma koehleri* by habitat manipulation". We look forward to his presentation at the 27th AGM and Scientific Conference.

Insect Illustration Competition
The Society awards prizes to non-professional illustrators, both open and student categories, for colour and black & white illustrations of insects and allied forms to promote excellence in insect illustration.

Entries were judged and the winners announced during the 27th AGM and Scientific Conference. [See page 14 below]

Photographic Competition
The Society awards prizes to unpublished or not previously displayed entries from members and non-members of the Society in the categories General Entomology, Micrographs and People in Entomology, to promote excellence in insect photography.

Entries were judged and the winners announced during the 27th AGM and Scientific Conference. [See page 15 below]

Summary of Activities
We are pleased to acknowledge that The Honourable **Sir William Deane,** AC, KBE, Governor General of the Commonwealth of Australia, is Patron of the Society and thank The Honourable **Bill Hayden**, AC for his previous patronage.

The Executive held nine formal meetings during its 1995-96 term of office. During this term, the Executive continued to seek ways to promote entomology and the Society, and finalised

administrative processes and an Operational Manual to assist future Executives in the management of the Society.

Nationally, the Executive was greatly concerned with the loss of entomological positions in some sectors and the apparent diminution of entomology as a discrete discipline. This concern led to surveys of Society members and employers of entomologists, respectively, to determine the trend in the number and types of entomological positions in Australia during the period, 1990 - 1996.

The survey of members also included questions regarding future directions of the Society. Summaries of the results of the surveys were presented in a paper by **John Jennings** at the Conference and in the Treasurer's Report to the AGM.

We wish to emphasise that responding members strongly supported the contracting out or payment of honoraria to Officers of the Society for carrying out the financial and secretarial functions. This issue will be discussed by the Treasurer in his Report; the way that Society funds will be used for these functions can then be determined by the incoming Executive.

The Society was also active in supporting the continuing need for Australian Applied Entomological Research Conferences; in preparing a submission (Dr **Tim Heard** and Ms **Penelope Greenslade**) for the 1996 Australian Quarantine Review Committee expressing the need for a mo)e streamlined process for the initial import and release of biological control agents, and expressing concern on the lack of control of introducing potential weeds to Australia; in appointing a member,Dr **Robin Gunning**, as a member of the NSW Minister for the Environment Scientific Committee; in placing a home page on the Internet listing the Society's objects and contact names; in obtaining a list of postgraduate projects in Australia for publication in *Myrmecia.*

The Executive is currently negotiating with Mr **Murray Upton** following his initiative for an occasional publication on "Guide to Management and Curation of Entomological Collections" to complement the successful publication, "Methods for Collecting, Preserving and Studying Insects and Allied Forms".

A member requested the Executive to consider whether the Society could support a postgraduate scholarship in invertebrate conservation. The Executive supported the concept but, unfortunately, the Society does not have the financial infrastructure to offer this or other similar scholarships. Membership subscriptions would need to be increased markedly to accommodate such scholarships.

The Executive was also requested to produce membership certificates for the Society. The Executive decided that formal certificates were more appropriate for Societies that had accreditation schemes for membership and did not follow the suggestion further.

The name of the Society's journal was changed to *Australian Journal of Entomology* following a constitutional change supported by a majority of members in a postal ballot. Members considered (in the above survey) that publication of the journal was the main function of the Society and this name change, together with the recent change in format, provides the basis for a modern journal. Members contributions and progressive editorial policy will ensure that it is a respected entomological journal internationally.

The Executive discussed with the new Executive Officer of FASTS, ways which corporate membership of FASTS may benefit the Society. Information from FASTS is now being published in *Myrmecia* for members' information, but we consider that the Society can be mor active in using FASTS to better promote entomological issues.

Internationally, the Executive, together with the incoming Executive and Division of Entomology, CSIRO, has prepared a proposal to host the 21st International Congress of Entomology in Brisbane in 2000. Brazil and India have also submitted proposals. The proposals will be presented to the Council for the International Congresses of Entomology at the Congress to be held in Florence this year.

The Society provided financial support for the 9th International Auchenorrhyncha Congress to be held in Sydney in February 1997.

Acknowledgments

The Executive thanks Dr **Peter Bailey**, Assistant Secretary, the Regional Councillors, Representative Councillors, Technical Editors, members of the Editorial Board of the journal, Assoc. Prof. **Jonathan Majer**, Convenor, and members of the Conservation Committee, and Mr **John Macdonald**, Assistant News Bulletin Editor, for their valuable contributions to the Society

during the last year.

The Executive appreciated the use of facilities in the Department of Crop Protection, University of Adelaide, and Primary Industries, South Australia.

Special acknowledgment is given to the efforts made by Dr **Rowan Emberson** and his colleagues in the New Zealand Entomological Society and Ms **Jeanette King**, Conference Secretariat, in organising this inaugural Joint AES/NZES Conference. Thanks also to Dr **Murray Fletcher** and Dr **David Dall** for their help with the scientific program.

The Executive views this conference as strengthening entomological relationships between NZ and Australia and furthering the promotion of entomology in the SW Pacific Region. The AES looks forward to holding a return joint conference in Australia.

In Closing

The Adelaide-based Executive started in February 1992 and finishes its term at this AGM. We have endeavoured to further the Society's objects through consolidating its finances, formalising its administrative and financial processes, promoting entomology in the SW Pacific, appointing a Patron, giving the Journal's name and format a modern image, revising the Constitution, establishing a Service Award to recognise members' outstanding service to the Society, carrying out member and employer surveys to assist decisions on the future management and directions of the Society.

Many members have contributed to these endeavours and I (PGA) would like to thank personally Dr **Paul Madge**, Mr **John Jennings**, Dr **Gary Taylor**, other members of the Executive and the Presidents, Dr **Gordon Hooper** and Prof. **Rhondda Jones**, for their commitment and support for the Society during this time.

I would also like to thank the many members who offered us constructive comments about the Society during the last few years.

The next Executive will be based in Brisbane and we wish Prof **Roger Kitching**, President, and Assoc. Prof. **Myron Zalucki**, Vice President, and other members of the Executive a successful and enjoyable time in managing the Society.

Peter G. ALLEN — Vice President

Gary S. TAYLOR — Honorary Secretary

Annual Report of the Treasurer for the year 1995

Members should note that, as for 1994, all accounts have been combined so that the total financial position of the Society can be seen in a single statement.

There are a number of points that I wish to highlight in the audited statements:

Balance Sheet

Current assets improved markedly, with the term deposit increasing by some $3835. It should be noted that the Stock of Publications is represented entirely by Murray Upton's book and the Directory of South-West Pacific Entomology. Other older miscellaneous publications, whilst still available, have been written off. As has been the practice of the Society in the last several years, surplus Journals and *Myrmecia* at the end of the financial year have also been written off.

Current liabilities are represented by accounts payable (Journal, *Myrmecia* and other accounts paid in early 1996) and subscriptions paid in advance. It should be noted that subscriptions in advance are only a liability if the Society were to be wound up and funds returned!

Net assets showed a slight improvement over 1994. This is represented by an operating surplus of $1048 and an accumulated surplus of $71147.

Income

Members' subscriptions appear to have increased but this is mainly due to previous accounting adjustments which gave a low figure for 1994 (see also Note 1 below).

Interest received was higher due to slightly better interest rates offered by financial institutions.

The Tamworth AGM made a small net loss ($48) so that, unlike previous years, there was no significant injection of funds. At the request of the auditor, future AGM accounts need to be both clear and complete and must include all receipts and invoices (See Qualification 2 below).

Reprint sales were well down.

Expenditure

Most expenditure items were similar to those for 1994. *Myrmecia* expenses and Journal expenses appear to be lower than for 1994. However, some 1995 expenditure appears as a liability in both instances and, in the 1994 figures, some 1993 expenditure was included.

Overall, the Society is in a slightly better financial position than at the end of 1994. This is partly due to more members paying their subscriptions by the due date of January 1 and to close monitoring of expenditure instituted in 1991.

Given declining membership and increased costs, as well as some initiatives for 1997, I recommend that subscription rates for 1997, which are due and payable on 1 January 1997 be:

Full Members	$60 ($5 discount if paid before 1 Jan 1997) - up $10
Affiliated Societies	$60 ($5 discount if paid before 1 Jan 1997) - up $10
Retired Members	$27.50 ($2.50 discount if paid before 1 Jan 1997) - up $2.50
Student Members	$27.50 ($2.50 discount if paid before 1 Jan 1997) - up $2.50
Joint Members	$65 ($5 discount if paid before 1 Jan 1997) - up $10
Sustaining Assoc.	$250 - no change.

Also, I recommend that purchase of the News Bulletin only remain unchanged for 1997 at $20.00 p.a.

I would like to thank **Peter Allsopp** (Journal Editor), **Murray Fletcher** (*Myrmecia* Editor), **Alison Roach** (Business Manager) and **John Hosking** (Tamworth Treasurer) for their cooperation in promptly providing information necessary in compiling these accounts. Also, I would like to thank those members of the AES and my friends and colleagues on the Executive who have supported and sometimes criticised me over the last 4.5 years I have spent as Treasurer. Thank you.

Ms **Chris Wellington** must also be thanked for auditing the 1995 accounts and for making positive suggestions regarding the accounts. I also thank her for providing notes for the incoming auditor.

Finally, I wish the incoming Executive well.

John T. JENNINGS
Hon. Treasurer

FINANCIAL STATEMENTS OF THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC for the year ended 31 December 1995

Certificate by Members of the Executive

We, John T. Jennings and Gary Taylor, being two members of the Executive of the Australian Entomological Society Incorporated, do state, on behalf of the Executive and in accordance with a resolution passed by the Executive, that:

(1) In the opinion of the Executive, the attached accounts present fairly the result of the operations of the Association for the year ended 31 December 1995.

(2) The Executive has reasonable grounds to believe that the Australian Entomological Society Incorporated will be able to pay its debts as and when they fall due.

Signed: John T Jennings/G.S. Taylor
9 August 1996

AUDITOR'S REPORT

SCOPE

We have audited the Financial Statements of The Australian Entomological Society for the year ended 31st December 1995 as set out [below]. The Executive of the Association is responsible for the preparation of the accounts and the information they contain.

We have conducted an independent audit of these Statements in order to express an opinion on them to the Members.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the accounts are free from material misstatement. Our procedures included examination on a test basis, of evidence supporting the amounts and other disclosures in the accounts, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the accounts are presented fairly in accordance with Australian Accounting Standards so as to present a view of the Association which is consistent with our understanding of its financial position and the results of its operations.

The audit opinion expressed in this report has been formed on the above basis.

QUALIFICATION

(1) We have relied on a Certificate of Stock On Hand at 31st December 1995 from the Officers of the Society

(2) We were unable to check all deposits and vouch all payments in the St George Bank AGM

Account. The deficit represents the balance in the Bank (excluding Interest) less Conference Expenses paid from the General Account.

AUDIT OPINION

Except for these qualifications, in our opinion, the financial statements are properly drawn up:

(a) so as to give a true and fair view of:
(i) The financial position of the Society as at 31st December 1995 and
(ii) the results of the activities of the Association for the year ended on that date.

(b) in accordance with applicable Accounting Standards.

(signed)
C. WELLINGTON
Registered Company Auditor
J.H. Doyle & Co.

The Australian Entomological Society Inc.
Notes to and forming part of the Accounts for the Year Ended 31st December 1995.

NOTE 1. ACCOUNTING METHODS

The attached Accounts have been prepared in accordance with Accounting Standards jointly issued by the Australian Professional Accounting Bodies. In particular:

(a) Stock on hand has been valued at the lower of cost or net realisable value.
(b) The principle of Tax Effect Accounting is not followed because the Tax Concept of Mutuality limits the net taxable income of the Society to income other than that from Members.
(c) Subscriptions
For the year ended 31st December 1995 all subscriptions for this or a prior year have been accounted for on a cash receipts basis. Subscriptions received for the year ended 31st December 1996, prior to 31st December 1995, have been shown as Subscriptions in Advance.

NOTE 2. CASH AT BANK, BUILDING SOCIETY, ETC.

	1995	1994
	$	$
C/Wealth Bank - Cheque A/c	28,592	33,282
St George Bank - AGM A/c	1,569	---
Savings & Loans		
- Conservation A/c	---	209
Sirocredit - Publication	8,382	5,443
- Other	3,175	1,340
St George Bldg Soc		
- News Bulletin	---	1,005
Suncorp Bldg Soc - Publication	53	6
	$41,771	$41,285

The Australian Entomological Society Incorporated
BALANCE SHEET
As at 31st December 1995

	To Dec 1995	To Dec 1994
Accumulated Funds		
Unappropriated Surplus B/fwd	72,195	71,147
TOTAL FUNDS	72,195	71,147
These funds are represented by:		
CURRENT ASSETS		
Cash at Bank, Building Society etc (Note 2)	41,771	41,285
Accounts receivable	135	478
Stock of Publications	8,203	8,379
Commonwealth Bank - Term Deposits	63,618	59,783
TOTAL CURRENT ASSETS	113,726	109,924
CURRENT LIABILITIES		
Accounts payable	11,950	12,441
Subscriptions received in Advance	29,581	26,336
TOTAL CURRENT LIABILITIES	41,531	38,778
CURRENT ASSETS LESS CURRENT LIABILITIES	72,195	71,147
NET ASSETS	72,195	71,147

The Australian Entomological Society Incorporated
STATEMENT OF ACCUMULATED FUNDS
For the Year Ended 31st December 1995

	To Dec 1995	To Dec 1994
Operating Surplus/Deficit B/fwd	1,048	(5,877)
Operating Surplus	1,048	(5,877)
Add Accumulated Surplus at the beginning of the Period	71,147	77,024
ACCUMULATED SURPLUS END PERIOD	72,195	71,147

The Australian Entomological Society Incorporated
INCOME AND EXPENDITURE STATEMENT
For the Year Ended 31st December 1995

	To Dec 1995	To Dec 1994
INCOME		
Members' Subscriptions (Note 1)	32,531	25,488
Interest Received	4,649	2,974
AGM - Tamworth (Net)	(48)	---
AGM - Other (Net)	---	4,551
Advertising	755	1,465
Sale of Publications	4,033	27
Journal - Institutional Subs	19,463	19,154
- Reprints, Back Issues	10,349	14,622
- Sundries	113	184
TOTAL INCOME	71,845	68,464
LESS EXPENDITURE		
Audit and Accountancy	790	800
Awards and Grants	3,265	3,198
Bank Fees	822	1,228
Conservation Committee	---	340
Constitution Changes	215	763
Directory SW Pacific	427	43
Doubtful Debts	---	(3,090)
Donations	900	500
Journal - Professional Fees	6,654	6,522
- Printing	38,169	39,740
- Reprints	2,353	3,433
- Postage	6,091	5,265
- Other Expenses	40	924
Editorial and Sundry	642	1,180
"Myrmecia" - News Bulletins	8,839	11.013
Postage, Printing and Telephone	523	1,498
Sundry Expenses	47	135
Subscriptions and Memberships	353	339
TOTAL EXPENDITURE	70,796	74,341
SURPLUS AT END OF PERIOD	1,048	(5,877)

Report by the Chief Editor to the 27th Annual General Meeting

Journal

Production statistics for the *Journal of the Australian Entomological Society* (now *Australian Journal of Entomology*) during 1995 (with figures for 1994 in parentheses) were:

Manuscripts received	65	(79)
accepted	48	(78)
rejected/withdrawn/lapsed	10	(10)
with Technical Editors	52	(45)

The number of manuscripts received during the year was down from that received the previous year and continued a trend from 1993. Acceptances were relatively constant through the year with enough material at the end of 1995 for the first issues of 1996. The number of manuscripts that were rejected, withdrawn or lapsed remained constant; withdrawn and lapsed manuscripts usually represents those with little chance of publication.

Volume 34 comprised the following parts:

Part	Published	Pages	Papers	Reviews
1	28 February	96	21	8
2	31 May	96	17	5
3	31 August	96	18	5
4	30 November	96	15	3

The total number of pages (384) was 32 pages less than the record 1994 volume, but was about the average of the last five volumes. The number of pages ready for publication and accepted in early 1996 has allowed the first and second parts of Volume 35 to be 96 page issues.

Publication schedules have been maintained and look like doing so for 1996; most manuscripts are published within 6 months of acceptance.

The Journal remains in good shape with a reasonable flow of diverse manuscripts. However, the reducing number of manuscripts received is a concern. If members want to retain the journal, then they must submit good-quality manuscripts.

Volume 35 has seen the change in name (*Australian Journal of Entomology*) voted for by the membership during the last year.

General

Alan Andersen, Alan Bishop, Tony Wapshere and **Ian Naumann** have continued to give excellent service to the Society in their capacities of Technical Editors. I thank them for their input and look forward to the first three continuing their service. After 6 years, Ian has decided to retire. His assistance over his tenure has been very much appreciated.

The continued assistance of **Jenny Allsopp** as Editorial Assistant and of **Ron Page** of ATA-Riverside Graphics and **Steve Gould** of Watson-Ferguson in meeting production deadlines has been vital.

Peter G. ALLSOPP
Chief Editor

MYRMECIA

News Bulletin Editor's Report 1996

My last report, presented at the 26th AGM in Tamworth, covered five issues up to and including Volume 31(3), August 1995, although not all costs for this last issue were included. I will therefore include 31(3) again in this report, as well as 31(4), and 32(1-2). You will note that the costs for 32(3) are not included in this report since, at the time of writing, no accounts had been received from either the printer or the distributor.

The most obvious comment to make about the last few issues is the late arrival of some of them in your mail boxes. The February issue was deliberately delayed to allow the registration form for this Conference to be included (ie, not my fault). The May issue was delayed even further through a number of factors, mainly associated with the printer (including late arrival at the printer, ie partially my fault). Part of the May issue had to be reprinted adding another two weeks to the process beyond what was already going to be a late issue. A&K Print has now merged with another company to form Acute Printing Pty Ltd and the company has moved to a new location actually much closer to BCRI than were A&K. The May issue got caught up in this move. As Editor, I apologise to all members for the lateness of these two issues. **Alan Izzard**, formerly of A&K Print and now of Acute Printing is acknowledged for his

continued cooperation in the production of *Myrmecia*.

The Executive has kindly appointed **John Macdonald** as Assistant News Bulletin Editor. John's role will be to maintain the back issues of *Myrmecia* and deal with requests for these. This is an annoying and time consuming component of *Myrmecia* production and I am pleased to be able to hand it over to someone else. Production of address labels is now done through Biometrical Data Processing (actually **Margaret Daniels**) from an Excel Spreadsheet emailed from the Treasurer, **John Jennings**. This is fast, cheap and significantly more accurate than trying to keep two databases up to date.

In addition to these changes, the content of the publication continues to evolve. In addition to Electronic News, which made its debut in August 1994, we now have a regular section entitled FASTS news. FASTS is the Federation of Australian Scientific and Technological Societies to which our Society belongs and to which we pay a significant membership fee. FASTS has taken initiatives over the last couple of years to improve the service it provides to its member societies and regular news of their activities is now posted electronically to the Presidents and News Bulletin Editors of the societies. I have found it very comforting to read about the political lobbying activity that is being undertaken by this group on behalf of all scientists and members are encouraged to approach the Executive of the Society with any matter of entomological importance that they feel ought to be brought to the attention of FASTS by the Society.

By far the most significant component of *Myrmecia* is still the contribution made by the Society's Regional Councillors and Overseas Correspondents and once again I thank these contributors for their work in providing interesting and entertaining summaries of their local activities for members information, although there is some variation in style between different contributors. The difficulties that we have had filling the second Regional Councillor vacancy in Canberra indicates the ever-increasing workload on all entomologists in paid employment and the consequent reticence to taking on such extra-curricular activities. Acknowledgment of **Gary Taylor**'s regular contributions as Secretary is necessary. Gary's comprehensive reports on the activities of the Society's Executive keep all members informed about what is happening within the Society. I do not envy anybody the job of Society Secretary, particularly having to take it over mid-term as Gary did. I would also like to pay tribute to the contribution **Peter Allen** has made to this Society during his term as Vice President and Chairman of the Executive. As News Bulletin Editor I have found Peter to be most professional, communicative, attentive to the needs of the other members of Council and very easy to work with. I also acknowledge the cooperation of NSW Agriculture for the use of facilities in the preparation of the News Bulletin.

We still get little information from the Affiliated Societies, although I am glad to have the Queensland Entomological Society contributing again. The lack of involvement from these Societies is something that I will try to redress during the next twelve months.

The table below shows costs involved in production of the last four issues of *Myrmecia*.

Issue	Date	Costs	Income	Pages
31(3)	Aug 1995	1880.19	135.00	30
31(4)	Nov 1995	2133.86	200.00	45
32(1)	Feb 1996	2485.96	100.00	37
32(2)	May 1996	?	560.00	38

Needless to say, costs keep going up. Funny about that.

Murray FLETCHER
News Bulletin Editor

Report of the Conservation Committee 1995-1996

This year the Conservation Committee comprised 11 members, namely **Tim New, Robin Coy** and **Paul Horne** (Victoria), **Eric Matthews** (South Australia), **Alan Andersen** and **Peter Dostine** (Northern Territory), **Genevieve Carruthers** (Australian Capital Territory), **Robin Gunning** and **Geoff Williams** (New South Wales) plus **Gordon Friend** and **Jonathan Majer** (Western Australia). In addition, the Vice President (**Peter Allen**) and Secretary (**Gary Taylor**) are *ex-officio* members of the Conservation Committee. **Gordon Friend** has recently left Western Australia and will not continue as a Committee member for this State.

During the year, the Society was approached by the New South Wales Minister for the Environment

inviting us to nominate a member to the Scientific Committee to advise on matters relating to the NSW Threatened Species Conservation Act. **Robin Gunning**'s name was put forward and she has now joined this committee. She reports that two insects, *Synemon plana* (Golden sun moth) and *Paralucia spinifera* (Bathurst copper butterfly) have already been given provisional listing as endangered species and Society members are encouraged to make further nominations. In Western Australia, **Jonathan Majer** served on the Department of Conservation and Land Management's Threatened Species Ranking Panel. This panel has since been disbanded as a result of its forthcoming amalgamation with the Threatened Species Committee and, on behalf of the Society, **Jonathan Majer** has offered to be involved. The Society was recently approached by the NSW National Parks and Wildlife Service to assist with the publicising of its draft Biodiversity Strategy. The relevant information has subsequently been forwarded to the Editor of *Myrmecia* for publication. A further initiative has been the Society's submission to the Australian Quarantine Review. Because of the implications outside the arena of conservation, this submission was prepared by the Executive. However, the Convenor of the Conservation Committee liaised with Executive about conservation implications.

In addition to activities under the banner of the Conservation Committee, members have ben active in their own right on insect conservation matters. **Tim New** and **Paul Horne** participated in the organisation of the very successful conference on Conservation and Biodiversity of Invertebrates, which was held in Melbourne at the end of 1995. A proceedings from this is expected soon and a sequel conference is already planned to take place in New South Wales. **Alan Andersen** is a member of the new CRC concerning tropical savannas, leading the project on "Invertebrate Indicators of Biodiversity and Ecological Change". The project aims to develop protocols for using invertebrates as indicators of the effects of land management practices on biodiversity. These protocols can be incorporated into environmental monitoring programs, which are an essential ingredient of sustainable management. Five invertebrate groups are being studied in detail: ants, spiders, grasshoppers, beetles and termites. The project is closely linked with other CRC projects on vegetation and vertebrates, to provide a comprehensive range of taxa for biodiversity analyses.

Geoff Williams is currently coordinating a Landcare rainforest restoration project at Lansdowne Reserve, North of Taree. This is an example of rare alluvial rainforest and is the holotype site for two dipteran species. Geoff is currently seeking funding to investigate the impact of weed invasion on understorey-associated invertebrates, particularly those involved in pollination or other plant-associated mutualisms.

Both **Jonathan Majer** and **Alan Andersen** have participated in the "Ants of Rain Forest Litter" workshop, which was held in Bahia, Brazil immediately prior to the AES conference. One outcome of this workshop is the preparation of protocols for monitoring rainforest health using ants as bioindicators.

Finally, the activities of the Conservation Committee are partly driven by information received from Society members - they are encouraged to contact the Convenor if they believe that any issues should be addressed.

Jonathan MAJER
Convenor
Conservation Committee

The Australian Entomological Society Inc
COMPETITION WINNERS

Scientific Illustration Competition

Entries in the scientific illustration competition were judged by a panel with expertise in graphic design and morphology plus a representative of the Society. The panel looked for scientific accuracy, design excellence, aesthetic appeal and presentation. This means that choice of subject, attention to morphological detail, accuracy of colour rendition, layout and difficulty of the subject were all important. All winning entries are reproduced in this issue of *Myrmecia* including the winning colour entries in their full glory.

The Open Class Sections attracted only a few entries but they were of extremely high quality. Despite the fact that there were only two entries in the colour section, both were awarded a prize because of the excellence of both. In the B&W category, **Debbie Kent**'s illustration was selected ahead of the other entries because, in addition to its high quality and attention to detail, the aspect of the specimen illustrated created both greater

interest value and a higher degree of difficulty.

The OPEN CLASS winners were:
COLOUR (Total entries 2)
1st Geoff THOMPSON (Qld)
2nd Genevieve WALLACE (NSW)

BLACK & WHITE (Total entries 5)
1st Debbie KENT (NSW)
2nd Geoff THOMPSON (Qld)

The student categories had 30 and 31 entries in the Colour and B&W sections respectively and there was generally a very high standard throughout. It is pleasing to see so many talented illustrators able to use this competition to advertise their abilities. Special mention should be made of the Scientific Illustration course run by **Andrew Atkins** at the University of Newcastle. Students at this course took all prizes and all honourable mentions in both categories except for 3rd place in the Black and White section. It was especially pleasing to discover that the entries in both sections that were selected to receive first prize were both entered by the same artist, **Sharyn Wragg**.

The STUDENT CLASS winners were:

COLOUR (Total entries 30)
1st Sharyn WRAGG (NSW)
2nd Paul DOWER (NSW)
3rd Tina WILSON (NSW)

BLACK & WHITE (Total entries 31)
1st Sharyn WRAGG (NSW)
2nd Kylie MAYBOUR (NSW)
3rd Patricia DENHOLM (NZ)

Photographic Competition

The same panel that judged the illustration competition also judged the photographic competition. We looked for interest value, technical excellence, choice of subject and relevance to the category. For the People in Entomology category we felt it was necessary for the images presented to include both People and Entomology. The General Entomology section attracted the most entries and, following completion of the judging, it was interesting to discover that we weren't judging which photographer had the best entries but which of **John Marris**' entries was the best. John dominated this competition and it was impressive to see that he took a prize in all categories of the competition.

GENERAL ENTOMOLOGY
(Total entries 12)
1st John MARRIS (NZ)
2nd John MARRIS (NZ)

PHOTOMICROGRAPHS
(Total entries 3)
1st Allan SJAARDA (ACT)
2nd John MARRIS (NZ)

PEOPLE IN ENTOMOLOGY
(Total entries 3)
1st John MARRIS
2nd not awarded.

1996 Ian Mackerras Medal
Myron P. Zalucki

Myron Zalucki has been selected to receive the 1996 Ian Mackerras Medal for excellence in Entomology. The Medal is awarded every two years, where suitable applicants are nominated. Previous winners, listed on the inside cover of each issue of *Myrmecia* are **Tony Watson** (1984), **Bob Sutherst** (1986), **Tim New** (1988), **Dick Drew** (1990) and **Ebbe Nielsen** (1992). No award was made in 1994. The following is the text of the nomination giving details of the reasons the Executive of the Society considered Myron to be a worthy recipient of this prestigious award.

We believe Myron to be an appropriate candidate because of his substantial contributions to entomology in the fields of ecology, teaching and professional services. Specifically, Myron is recognised internationally for his research on the ecology of monarch butterflies, while nationally he is known for his work on *Helicoverpa* and for his teaching and professional services. We develop more fully Myron's capabilities in these areas in the paragraphs that follow.

Monarch Butterfly. The monarch butterfly, *Danaus plexippus*, is arguably one of the world's most widely recognised insects. The monarch's ability to sequester toxins from its host plants have resulted

in this species becoming a model for chemical ecology. Myron, who began working with monarchs during his PhD, is internationally recognised as a leading researcher in the field. "The Biology and Conservation of the Monarch Butterfly" (L.A. Museum of Natural History, 1992), which Myron co-edited with Prof. S.B. Malcome (University of Western Michigan), received highly favourable reviews in journals such as *Science* and *Ecology* and is demonstrative of his reputation amongst international colleagues. Myron has used the monarch/milkweed system to explore a number of critical areas of herbivore ecology, particularly host-plant influence on female oviposition choice and larval survival. These are fundamental areas of insect herbivory and his contribution to this field can be recognised through citation of his papers in key texts (e.g. "Host-Plant Selection by Phytophagous Insects", by Bernays and Chapman, 1994). In collaboration with Dr Jane Hughes (Griffith University), Myron has also used the monarch as a model species for population genetics, resulting in publications in leading journals such as *Heredity* and *Genetics*.

Cotton Entomology. Using his skills as an herbivore ecologist, Myron and his students have made significant contributions to cotton entomology in Australia, particularly with regards to *Helicoverpa* species. His 1986 review (Zalucki *et al.* "The Ecology of *H. armigera* and *H. punctigera*, what do we know?") helped identify and promote novel research areas, such as studying *Helicoverpa* outside the cropping system and investigating moth migration. Myron's leading role in Australian cotton entomology is demonstrated through his position on the Advisory Committee or the CRC for Sustainable Cotton Production and his editorial role in the production of a book and two national workshop proceedings on heliothis.

Teaching. Since appointment to the Department of Entomology, The University of Queensland in 1981, Myron has been an important member of the Australian community of academic entomologists. In the last 15 years, he has contributed to the teaching of a variety of undergraduate subjects, most significantly Insect Ecology, Insect/Plant Interactions and Integrated Pest Management. Myron has pioneered the use of Computer Assisted Learning in entomology, writing ecology and pest management models for use in undergraduate teaching. At the postgraduate level, Myron has successfully supervised 10 PhD, 11 Masters and 10 Honours students, with a further 18 postgraduate students currently being supervised. Myron has made, and continues to make, an important contribution to the teaching of entomology in Australia.

Services to the Profession. Myron has an active record in services to the profession. Of note are positions on the advisory committees of the Australian Plague Locust Commission and the CRC for Sustainable Cotton Production, and 5 years as a technical editor of the *J. Aust. ent. Soc.* As convenor and chairperson of the group which bid for the CRC for Tropical Pest Management, Myron also played a leading role in establishing a Centre which has helped raise the public profile of entomology.

First Joint Conference of the Australian and New Zealand Entomological Societies

Lincoln University Christchurch, NZ August 1996

The inaugural joint AES/NZES conference was held at Lincoln University, Canterbury, NZ, 22-27 August 1996.

The conference was attended by a total of 160 delegates, including about 50 Australian entomologists, plus a good number of day registrations bringing the total number of delegates to about 220. The large number of postgraduate students and younger members of both societies was encouraging and showed the depth of both societies.

The organisation of the conference was most professional and was well supported by the excellent conference facilities at Lincoln University, even the institutional food was of a high standard!

Delegates were welcomed by **Bruce Chapman**, Head of the Department of Entomology and Animal Ecology, Lincoln University, followed by Presidential Addresses from the two societies. **John Hutcheson** presented an illuminating address in which he challenged entomologists to provide prescriptive models to landscape

managers for retention of endemic genetic variety. He believes that we hold the keys to a great "tool box" for guiding the sustainability and increased utilisation of biodiversity. **Rhondda Jones** presented an excellent address on "Coping with Adversity: Lessons from Tropical and Temperate Insects". She touched on the current political and financial pressures on research and alluded that entomologists may take some lessons from the adaptive strategies used by certain insects to cope with changed environments, including migration!

The 1996 Phil Carne Prize winner, **Lindsay Baggen**, from the Orange Agricultural College of the University of Sydney, presented a well received paper on an elegant laboratory and field study showing the benefits of available food to enhance parasitism of potato moth by a wasp.

The first morning included a panel discussion with Chief Executives and Managers of the NZ Government's policy, research and funding organisations. They presented a clear message that entomologists need to know the exact market and develop strategies in the interest of entomology and that "they need to learn to play the game as it is, not play the game as it was". Entomologists also need to focus on the way they do science, improve the faith of the community in science and seek to work holistically, not individually. The major Government funding body in NZ is less concerned with disciplines, but is interested in what disciplines can achieve. They need to provide outcomes. Their messages were relevant to the Australian scientific environment and gives further reasons for the Society to work with FASTS to promote entomology in Australia.

The Conference proceedings comprised three main symposia, general sessions and posters. The symposia were Faunal Connections, in which delegates from each country compared NZ and Australian invertebrate fauna and insect-plant associations; Measures of Success in Biological Control, in which delegates from each country provided a range of examples where success was being measured in biological control programs, a sound response to the comments of panel members on the first morning; Insect Conservation, in which all of the papers were from NZ, an observation which prompted the question by a New Zealander "Are Aussie insects in a privileged environment?"

The General Sessions combined a wide range of papers characteristic of our own recent conferences. The scientific merit and presentation of papers were of a very high standard and appreciated by New Zealanders and Australian alike.

The Department of Entomology and Animal Ecology of Lincoln University awarded a generous prize for the Best Student Presentation at the Conference and we are delighted that **Manthana Khumlekhasing**, of the University of Queensland won the prize with her presentation on "Pheromones, Male Aggregations and Mating Success in the Flower Thrips *Frankliniella scultzei*". Well done Manthana!

The social program was also well organised with a welcoming reception on the first evening, an extended evening viewing of the posters and entries in the illustration and photographic competitions (reported elsewhere in this issue) and a most enjoyable Conference Dinner. All functions were lubricated with New Zealand wines, although it is noted that the bottle of Penfolds 389 that **Tony Clarke** took to the dinner was eagerly sought out by the Australian winelovers.

Speaker at the dinner was **Steve Goldson**, formerly at AgResearch in Lincoln. In addition to doing his part to raise the elegance of hair design in New Zealand, Steve is currently serving a secondment as a scientific adviser to the New Zealand Government. Steve was able to shed some light into the dark halls of power and the processes of government, although he did make the comment that he felt it was time to leave as he was now getting used to the situation, which worried him.

The organising committee also organised some sensational field trips following the conference including whale watch tours, glacier visits and other things that only New Zealand can offer. Unfortunately, both authors of this report had duty calling back in Oz and couldn't participate, although we managed a tour through the International Antarctic Centre at Christchurch Airport before flying out. Congratulations to **Rowan Emberson, Jeneatte King, John Marris** and the other members of the organising committee for setting a standard for joint conferences that will be hard to emulate in three years time in Australia.

Peter ALLEN Murray FLETCHER
Adelaide Sydney

1st Joint AES/NZES Conference, Christchurch NZ

(1) **John Hutcheson**, President NZES, and **Rhondda Jones**, President AES; (2) Regional and Representative Councillors of the Society present at the Conference (Front Row, from left to right) **Gordon Simpson** (Qld); (3) General View of the Poster Session; (4) **Lisa Sinclair** (NZ) shows off her poster; (5) **Rowan Emberson** holds the floor at the Dinner; (6) **Bruce Chapman** (Lincoln University) presents the award for best student presentation to **Manthana Khumlekasing** (Qld) [Photos: Murray Fletcher]

1st Joint AES/NZES Conference, Christchurch NZ
THE CONFERENCE DINNER

(1) **Trevor Crosby** (NZ) and **Peter Johns** (NZ) lead the charge at the buffet; (2) **Steve Goldson** (NZ), the after dinner speaker; (3) Rowan's table; (4) Woody's table; (5) Lindsay's table; (6) **Peter Allsopp** (Qld), **John Macdonald** (NSW) and **Steve Goldson** (NZ). (Photos: Murray Fletcher).

1st Joint AES/NZES Conference, Christchurch NZ
THE CONFERENCE DINNER

(1) **Liza Miller** (Qld), **Violetta Trakevski** (Vic) and **Lisa Sinclair** (NZ); (2) **Pip Gerard** (NZ) coping with a table of mainly Queenslanders; (3) **John Jennings** (SA) and **John Macdonald** (NSW) enjoying the one about..... (4) **Peter Allen** (SA) and **Alan Flynn** (NZ) trying to give away the orange juice; (5) Murray's table; (6) Phil Carne Prize winner, **Lindsay Baggen** (NSW) with **Karen Tutt** (NZ), **Edward Tsyrlin** (Vic) and **Zamir Hossain** (NSW) (Photos: Murray Fletcher)

OBITUARY
Paul N. Forte
1915 - 1996

Paul Forte was a founder member and first State Representative for Western Australia of the Australian Entomological Society. He was born in Albany, WA on 16 November 1915 and died in Perth on 9 May 1996.

After graduating from the University of Western Australia, Paul joined the Department of Agriculture WA as an agricultural advisor in May 1939 and the following year became Assistant Entomologist under Mr C.F.H. Jenkins, Government Entomologist. He remained with the Department for the next 34 years becoming the Senior Entomologist in what had become a large Branch with 10 Entomologists and 20 other staff.

Paul Forte photographed in Melbourne in 1988.

Paul began his professional career at the beginning of a new era of economic pest control when the new "wonder" chemicals such as DDT, Gammexane, Dieldrin and the organo-phosphate group of insecticides were making their appearance. In WA he pioneered the testing of the new pesticides against a broad range of horticultural and agricultural insect and mite pests including the pasture webworm, *Hednota* spp. and the small plague grasshopper, *Austroicetes cruciata*. His work on the small plague grasshopper led to the development of highly effective aerial and ground spraying methods using dieldrin and later ultra low volume (ULV) malathion.

During the summer months from 1952 - 1968 Paul was deeply involved in the field as the technical director of the Argentine Ant Eradication Campaign in Western Australia. At its height, it was the largest project of its kind in Australia, covering large parts of the Perth Metropolitan Area and many south west country towns.

At the commencement of the Ord River Irrigation Scheme in the Kimberley region of Western Australia, Paul was the entomologist who, for 3½ years, used his experience in aerial spraying with high and low volume equipment against the numerous pests which attacked cotton, safflower and other crops being grown there commercially for the first time. During this time he visited the cotton growing areas of Egypt, the Sudan, Israel, California and the southern United States to observe methods of control of key insect pests.

Paul was a keen collector of insects. He made a valuable collection of them which he later donated to the WA Department of Agriculture reference collection which was then the most important insect collection in the State.

Paul Forte was a generous man, passing his knowledge of all aspects of entomology on to his younger colleagues. Of special significance was his assistance in the proper designing of trials using the latest statistical methods.

In the scientific community of WA he was recognised by his peers, being the Treasurer and elected President for one term of the WA Branch of the Australian Institute of Agricultural Science - his Presidential Address being "The Argentine Ant". Paul was involved in the development of aerial agriculture in Australia and was the WA representative at the first meeting of the Aerial Operators' Association of Australia at Richmond, NSW. He was also a long standing member of the New South Wales Entomological Society.

Paul's favourite hobby was horology. Not only did he mend everyone's clocks and watches more or less free of charge at the Department and elsewhere, but he had at home quite a large collection of old clocks and watches which he made tick.

A deeply read man, Paul had a substantial library. As well as books on entomology and other subjects, he had many publications on statistics and experimental design to which he referred with good effect in his work.

After his retirement, Paul spent much of his time looking for gold, diamonds and other minerals in the WA goldfields and in Queensland. It is reported on good authority that he did not make his fortune.

Paul Forte was a devoted family man and followed with pride the successes of his children and grandchildren. I am indebted to Mrs Jean Forte, Paul's widow, and his long time colleague, Mr Wally O'Donnell, Technical Officer, Entomology Branch (retired) for much of the factual matter in these notes.

Andrew SPROUL
Former Senior Entomologist
WA Department of Agriculture

OBITUARY
Arthur Woods
1929 - 1996

Arthur Woods joined The University of New South Wales in September 1961 as a lecturer in the then School of Biological Sciences, and remained on the staff of UNSW for over 33 years as Lecturer and then Senior Lecturer.

Arthur lived through the various incarnations of biology in the University, making his most important contributions in the areas of applied biology and particularly entomology. In recent years he was responsible for the teaching of biometry and he continued to teach this and some aspects of 'Insect Diversity and Management' - the entomology unit coordinated by the Centre for Entomological Research and Insecticide Technology (CERIT), following his retirement from the university in September 1994.

Arthur Woods (1929-1996)

Arthur made a very significant contribution to many UNSW biological research programs and postgraduate student projects over the past thirty years by providing biometrical support and advice. Many such programs and students owe no small measure of their success to Arthur's solid knowledge of data analysis and modelling. A computer program for Probit Analysis of dose-response data which Arthur wrote in 1975 has been re-written for several computer platforms, still is used occasionally at CERIT and stands up solidly against more recent commercial products.

Arthur's neighbour and friend, Associate Professor Eric Sowey, spoke of Arthur at his funeral... Noting especially Arthur's kindliness and his love of learning, Eric said: "For all his shyness and English reserve, Arthur was not at all aloof. He turned a lively face towards the world. He especially enjoyed the intellectual exchange of ideas. He listened attentively in conversations and his own thoughts were always precisely expressed, often with a delightfully wry humour.

"I know from personal experience that he was often better informed than the person he was talking with, but he never acted the know-all, and never found value in a crushing repartee. His major work, the book Pest Control: A Survey, was published by McGraw-Hill in 1974 and was well received.

"There were times (as we all have in life) when the behaviour of others wounded or upset him. Yet, even then I never heard him utter a malevolent word. Indeed,

he always seemed able to transcend negative feelings, recognising that we do not all see the world through the same eyes.

"Towards his dear wife, Magda, he was a paragon of kindly consideration - ever protective, supportive and loyal.

"Arthur's most memorable quality was his love of learning. He was a scholar of the old school. He was a ceaseless collector of information, particularly in his own specialised field of entomology, but his interests were very broad. They ranged across all the biological and natural sciences, and traced along many other threads in the tapestry of knowledge.

"He was a good organiser of his own knowledge, and could, with very little hesitation accurately retrieve a wealth of detail on many subjects.

"Above all, he was a passionate communicator of what he knew. Whether he was in conversation, or writing an article, or producing a book review for The Sydney Morning Herald or The Australian, he always had something interesting to say and an engaging way to say it.

"In writing for the layperson, Arthur knew how to simplify without sacrificing the meaning of what he had to say. In the words of Susan Wyndham, literary editor of The Sydney Morning Herald, 'he was a public intellectual in the finest meaning of those words'."

"Arthur served for some 20 years on the editorial board of the Current Affairs Bulletin, and was a principal editorial collaborator for the Collins Australian Encyclopaedia, He even had a spell as a TV science presenter on Channel 7 in Sydney.

"All those who had the pleasure of knowing Arthur, and especially those who benefited from his dedication as a teacher or as an editor, will feel his loss with sadness and will bring him to mind in the coming years with fond remembrance."

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Eric SOWEY
School of Economics
Robert KING
School of Biological Science
Chris ORTON
CERIT The University of New South Wales

OBITUARY

Biological and Chemical Research Institute Rydalmere 1961-1997

NSW Agriculture's Biological and Chemical Research Institute will close its doors on 31 January 1997 after 36 years at Rydalmere in the inner west of the Sydney metropolitan area. This issue of *Myrmecia* contains the final report from that Institute. The Institute was established in 1961 to house the three scientific branches of the Department: Entomology, Biology (later Plant Pathology) and Chemistry. The three Branches were initially established in 1890 when the Department was founded and the first three professional appointments were made: a Consulting Chemist (A. Helms), a Pathologist (N.A. Cobb) and an Entomologist (A.S. Olliff). Olliff died in 1895 and was succeeded by Walter W. Froggatt, one of the most prolific Australian publishers on entomological topics relevant to agriculture and forestry. Initially the three branches had separate accommodation, first in Macquarie Street and later in the old Naval Department in George St North. In 1930 the three branches were brought together into the Department of Agriculture building in Farrer Place in Sydney and were combined with the Botanic Gardens to form the Division of Science Services in 1940. By the early 1950s the Farrer Place accommodation had become woefully inadequate and the three branches were moved to the purpose-built Rydalmere site in 1961, with the Botanic Gardens staff remaining in Sydney.

The Division was renamed the Biological and Chemical Research Institute in 1970 and at that time had a staff at Rydalmere of about 180 rising to a peak of around 220 in 1982. Of these staff numbers, approximately half were Chemistry Branch and the remainder were equally divided between Entomology and Plant Pathology. Entomologists specialised in areas of agriculture and were coordinated by the Director of Entomology with the other specialist entomologists scattered throughout the State. In 1982 Entomology Branch had 26 professional entomologists with additional support staff. Half of these entomologists were stationed at BCRI Rydalmere and the remainder in country centres.

In November 1995 the NSW Director General of

The Biological and Chemical Research Institute of NSW Agriculture at Rydalmere. (1961 - 1997)

Agriculture announced that the Institute would close and the staff relocated to country centres which would be developed as Centres of Excellence. Staff levels have declined rapidly since that time with voluntary redundancies, resignations and early retirements being taken. To date only two professional entomologists have left the department rather than relocate, but at least four others are also planning alternative moves. Although much of the essential work of the Institute will continue in the Centres of Excellence, the synergism generated by the multidisciplinary content of the Institute will be lost.

The Rydalmere establishment has been a major force in agricultural research and extension in Australia for 36 years and its closure has shocked the international scientific community, many of whose members have sent submissions of support on behalf of the Institute to the Premier of NSW, to the Minister for Agriculture and to the Senate Standing Committee on State Development, which reviewed the decision. Alas, all was in vain and those hardy souls who are now preparing to make their moves into the wilds of country NSW have resigned themselves to the inevitable.

Murray FLETCHER
NSW Agriculture
BCRI Rydalmere

REPORT ON THE 46TH OHIO STATE ACAROLOGY SUMMER PROGRAM.

As suggested by the title the Ohio State University (OSU) Summer Acarology has been running for many years with many acarologists benefiting from the knowledge disseminated during the few weeks that comprise the program. Over the years the Ohio Summer program has developed into the current format where three programs, Medical/Veterinary Acarology,

Oz/NZ Participants in the OSU Acarology Summer Program: (L to R) David Walter (Qld), John Macdonald (NSW), Owen Seeman (Qld), Glen Hunt (NSW), Tingkui Qin (NZ), Graham Osler (NSW), Phil Lester (NZ) [Photo: Heather Proctor]

Agricultural Acarology and Soil Acarology (each alternate year), are available for students from all over the globe. In the past the summer program has been an important step in the training of future acarologist with **Bruce Halliday** and **David Walter** as good examples.

However, 1996 saw a huge response from Australia and New Zealand with participation in the program in both teaching and student roles!

David Walter, University of Queensland, was a course provider in both the Soils and the Agricultural Acarology programs. David lectured in the first week of the Soil Acarology and then instructed students in the Agricultural Acarology course on mesostigmatid mites.

Course participants from Australia and New Zealand numbered an unprecedented seven participants. **Glen Hunt** (Australian Museum) attended the Medical Acarology program to learn about ticks; **Owen Seemen** (University of Queensland), **Graham Osler** (Macquarie University), **Simon Catesby** (Queensland Forestry Research Institute), and **Ting-Kui Qin** (Landcare Collections, Auckland) participated in the Soil Acarology, while **Phil Lester** (currently at Queens University, Ontario but still very much a Kiwi!) and **John Macdonald** (NSW Agriculture) attended the Agricultural Acarology program.

All courses were well attended and there was a total of forty two students in the three courses. In addition to the Australian/New Zealand contingent, there were participants from the USA, India, Costa

Rica, Holland, Spain, Indonesia, Canada, Turkey, Israel and Japan. As you would expect with such a large group, there was a mixture of backgrounds and experience that made the intensive courses all the more enjoyable. **Intan Ahmad** (Institut Teknologi Bandung), a member of the AES who had studied previously as a graduate student at OSU, participated in the Agricultural Acarology program. It would seem that you have to go to great lengths to avoid meeting fellow members of AES!

John MACDONALD
NSW Agriculture

REGIONAL NEWS

AUSTRALIAN CAPITAL TERRITORY

Australian Biological Resources Studies

News from Australian Biological Resources Studies (ABRS) is that another Zoological Catalogue was released in July, making the sixth in two years, four of which have been entomological volumes. This latest volume includes Neuroptera, Strepsiptera, Mecoptera and Siphonaptera. With this news, and the newly released PLATYPUS - the ABRS relational data-base package for taxonomists, **Keith Houston** joined the northern migration of Australian Entomologists to Florence for the International Entomological Congress. PLATYPUS was received enthusiastically at the Congress and at the Natural History Museum, London. In fact, it has been well received at the many venues Keith has attended recently and can be inspected, free of charge, by down-loading from the Internet at "http://www.ento.csiro.au/platypus/platypus.html".

Alice Wells formed part of the somewhat smaller, but nevertheless, select migration south-eastwards to New Zealand for the first joint Australian and New Zealand Entomological Societies meeting at Lincoln, Christchurch, where she promoted ABRS, the new entomological Zoological Catalogues and PLATYPUS. A highlight of the trip was keeping a promise to share a glass of good Australian red wine with one of the authors of the Phthiraptera Catalogue, **Ricardo Palma.**

CSIRO Division of Entomology

Penny Greenslade returned in early September after seven weeks working and attending meetings in Europe. She first attended an extremely rainy Soil Zoology Colloquium followed by a Collembola Colloquium in Dublin. These meetings are held every four years and she presented a paper and a poster at each meeting. Results from Soil Zoology group's RIRDC project was the topic of one of the papers delivered. One difference from previous meetings in this series was that there were an unusually large number of posters of a high standard at both of them. Penny's posters were designed by Suzi and (content apart) were widely admired for their appearance and in this respect at least, were amongst the best shown. She then spent several weeks in Cambridge (UK) at the British Antarctic Survey working on their collections of Collembola from the Antarctic and Subantarctic in particular those from the Falkland Islands and South Georgia. As a result Collembolan faunas of all subantarctic islands have now been recently reviewed and biogeographical patterns can for the first time be determined. She returned to Australia via Florence.

AQIS

Both Canberra based AQIS Entomologist were out and about in August-September. **Glynn Maynard** attended the International Entomological Congress in Florence, Italy and then the biological control conference on technology transfer in Montpellier, France as part of a DPIE development award. As well she spent a week at the Oxford University Museum doing taxonomic work on colletid bees.

Kay Lindsay represented AQIS at the first joint Australian New Zealand Entomological Society Conference in Christchurch in August this year and presented a paper on guidelines for the consideration of exotic pests as nonquarantine organisms.

Stephen Ogden arranged for a personal demonstration for her of the new MAF database, PPIN (Plant Pest Information Database) which encourages the publication by scientists of findings of organisms new to New Zealand, new plant pest host associations and new plant pest distributions as a first publication, a very useful system for quarantine use that Australia could well benefit from having also. As ever, New Zealand hospitality was excellent.

Glynn MAYNARD
Regional Councillor

NEW SOUTH WALES

Biological and Chemical Research Institute

The Biological and Chemical Research Institute at Rydalmere will be finally laid to rest on 31 January 1997 (see Obituary on page 23), although the slow death it is currently suffering is painful to watch. This means that this is the final report from this world-renowned research establishment.

The Taxonomy Unit is currently involved in a number of monitoring programs (Western Flower Thrips, Papaya fruit fly, exotic fruit fly, grapevine yellows vectors) that will need to be maintained throughout the relocation process. The new building at ARVC Orange now has its slab poured and the builders expect the main structure to be completed this year, with services to be added early in the New Year. We have been told (from one source) that the building will be completed in time for the collections to be moved prior to the politically selected deadline of 31 January 1997. However, somebody associated with building design and construction has told us that there is no way that the building will be ready prior to March. Trying to ensure that the collections aren't moved before there is appropriate accommodation to receive them is, well, trying to say the least. The decision to move a biological research establishment in midsummer, when biology is at its most active, shows not just that politicians have no idea of the basic needs of biological scientists but, more significantly, our political masters don't care about the practical issues, just the politics.

CITRUS TWINS: Andrew Beattie and Bob Luck (or *vice versa* - it apparently doesn't matter). [Photo: Joan Beattie DSc]

Andrew Beattie's last day of duty with NSW Agriculture will be Friday 13th December - a result of forced voluntary redundancy. (There is no significance associated with the selection of date!) He will take up a position as an Associate Professor in the School of Horticulture, University of Western Sydney, Hawkesbury. Andrew transfered his HRDC and ACIAR projects to the University in September, and **Debbie Rae, Duncan Watson, Oleg Nicetic, Anjali Kallianpur, Zhongmin Liu** and **Weiguang Liang** have been based there since then. **Laura Jiang** will be the last of the group to leave the Institute. She will leave on Friday 10 January and join the University on the following Monday. Andrew will maintain his interests in citrus entomology and in the use of petroleum spray oils to control pests and diseases of fruit trees, vegetables and ornamentals. A new ACIAR project should see work on the integrated control of citrus pests expanded beyond Guangdong to another four provinces in China and to Vietnam, Thailand and Malaysia. The project also allow continuing collaboration with **Bob Luck** (University of California, Riverside). It has been remarked upon that Andrew and Bob couldn't be more physically similar if they were in fact twins (see photo).

Alan Clift has announced that he will be undertaking private consultancies in association with the University of Sydney and will also be leaving the Department in mid December.

Although he left us formally some months ago, **Graham Goodyer**'s happy smiling face is still regularly seen around the Institute, although he has been doing some work with AQIS at Rosebery, assisting with identifications of quarantine interceptions. It is assumed that he will continue to haunt BCRI Rydalmere indefinitely - after all someone has to play Santa.

Centre for Entomological Research and Insecticide Technology (CERIT)
University of New South Wales

Early in September all CERIT staff members 'migrated' to the Army Malaria Research Unit, Ingleburn, to bone up on the latest happenings at the unit and absorb some of their extensive knowledge on mosquito culturing and testing techniques. Thanks to, **Tony Sweeney, Bob Cooper** and **Steve Francis** for their presentations and for facilitating the visit. AMRU is moving to Brisbane later in the year but one person who won't be going is **Tony Sweeney**. He has accepted a UNSW Visiting Fellowship to continue his work on mosquito distribution and ecology at CERIT, in collaboration with the Army.

CERIT again participated in the UNSW Open Day held in September, by exhibiting a variety of live insects and information. As usual our exhibit was very well patronised and the day was a great PR success.

Chris Orton and **Chris Virgona** travelled to the NRA, Canberra and met with **Colin Byrnes, Malcolm Arney, Ian Barrass** and **Joanne Thoroughgood**, for wide ranging talks on CERIT's relationships with NRA, especially our involvement in the insecticide registration process, updating of CERIT's testing protocols and the new NRA 'PUBCRIS' data base of chemicals.

Jenny Anderson paid a visit to CERIT while on a short stay in Sydney from her property at Gulargambone. Other visitors have included: **Annabelle Duncan** - CSIRO Division of Chemicals and Polymers; **Radh Akrishna** - Indian Area Manager, Reckitt & Colman Products; **Mario Abela, Bryan Lett** and **Janet Morris** - Reckitt & Colman Products Australia; **Dennis Oswald** and **Dorota Jakubik** - SC Johnson & Son Pty Ltd; **Mike Lawrence** - BRI Ltd; **Robert Ball** and **Don Milne** - Slabset Pty Ltd.

Our Senior Tech. Officer, **Patrick O'Rourke** is recovering well from his accident induced shoulder injury and we all wish **Merilyn Baker** well for her Maternity Leave in November.

CERIT celebrated its tenth year as a UNSW Centre in July and as I write this, CERIT staff members are busy preparing for our first official review by the University. While this is supposedly 'just a process to be endured and conquered', certain members of staff are looking a little more stressed than usual.

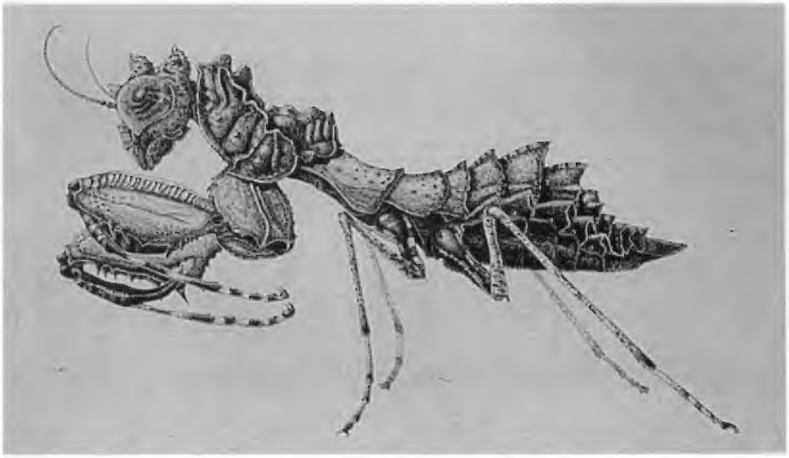
Sad to report that our entomologist colleague from the School of Biological Science; **Arthur Woods**, passed away suddenly in July. Arthur taught biometry and some aspects of entomology to UNSW students for over three decades. For the past three years, though officially 'retired', he has taught IPM in the entomology unit 'Insect Diversity and Management' which is coordinated by CERIT. Arthur's contribution and friendliness will be sadly missed. His obituary appears on page 22 of *Myrmecia*.

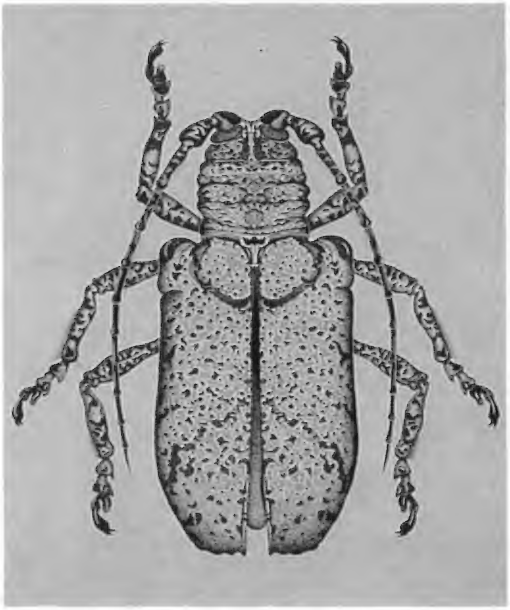
Department of Medical Entomology
University of Sydney at Westmead Hospital

The crew are starting to buzz back and forth in anticipation of the upcoming mosquito season. Both **Cameron Webb** and **Karen Willems** have already recommenced trapping in the Homebush Bay area. While **Stephen Doggett, John Clancy** and **John "Romeo" Haniotis** have been preparing and waiting in anticipation for the long hours of staring down microscopes and squashing mossies, for the arbovirus monitoring program.

Richard Russell attended the recent International Congress of Entomology in Florence, Italy and presented a paper on mosquito management in constructed wetlands. Shortly after arriving back in Sydney, Richard winged his way over to Western Australia for INTECOL's Fifth International Wetlands Conference held at the

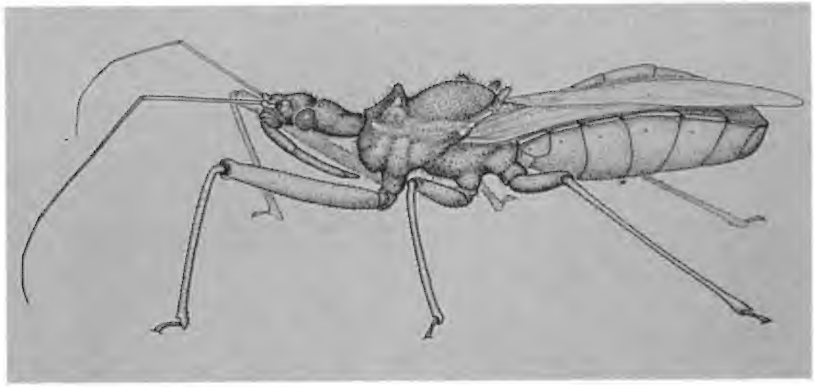
SCIENTIFIC ILLUSTRATION COMPETITION WINNERS
BLACK & WHITE SECTION - STUDENT

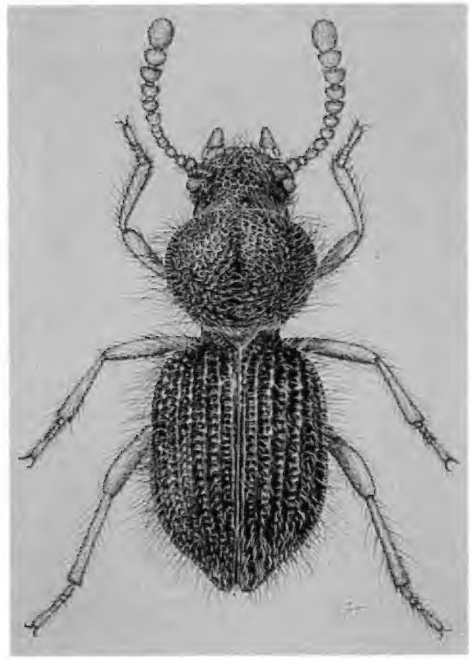




TOP: 1st place, Student, *Paraoxyphilus* sp, Amorphoscelidae. **Sharyn WRAGG**, NSW
BOTTOM: 2nd place, Student, *Rhytiphora maculosella*, Cerambycidae. **Kylie Maybour**, NSW

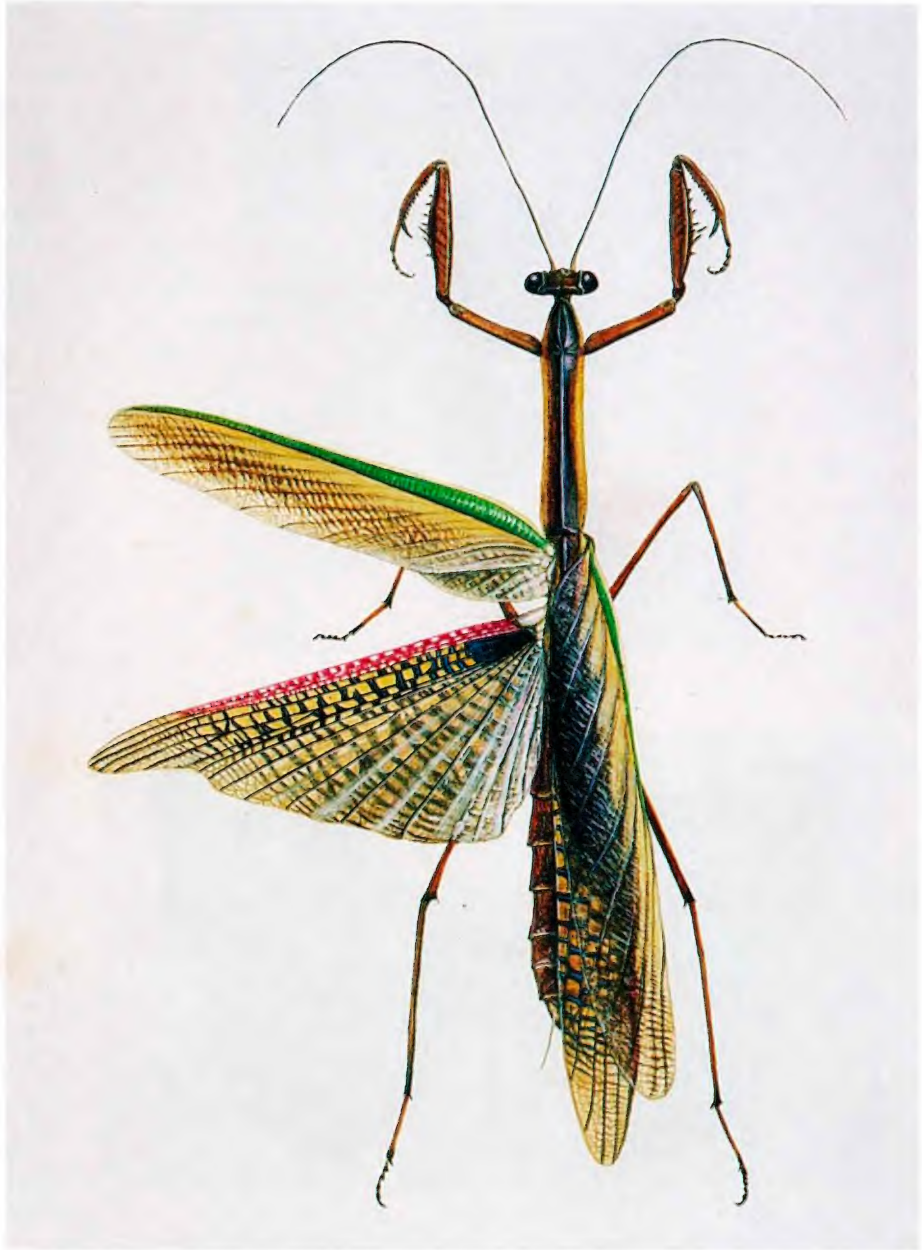
SCIENTIFIC ILLUSTRATION COMPETITION WINNERS
BLACK & WHITE SECTION - OPEN





TOP: 1st place, Open. *Pristhesancus* sp. **Debbie KENT**, NSW.
BOTTOM: 2nd place, Open. Adeliine Tenebrionidae. **Geoff THOMPSON**, Qld

SCIENTIFIC ILLUSTRATION COMPETITION WINNERS
COLOUR SECTION

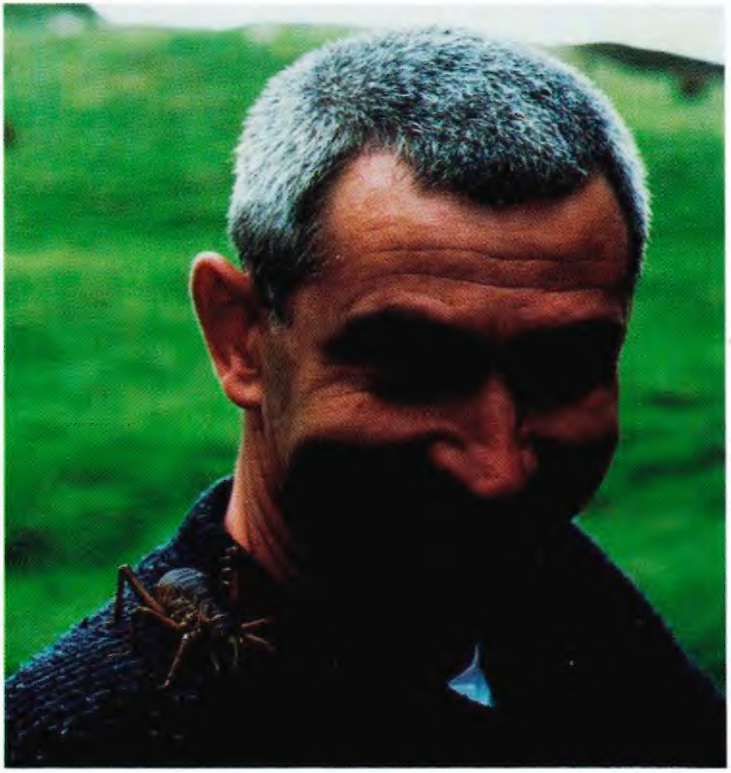


1st place, Student Colour, *Tenodera australasiae*, Mantidae. **Sharyn WRAGG**, NSW

SCIENTIFIC ILLUSTRATION COMPETITION WINNERS
COLOUR SECTION

TOP: 2nd place, STUDENT, *Scaptia* sp. Tabanidae. **Paul Dower**, NSW.
BOTTOM: 1st place, OPEN, *Candalides helenita*, Lycaenidae. **Geoff Thompson**, Qld

SCIENTIFIC ILLUSTRATION/PHOTOGRAPHY COMPETITION WINNERS

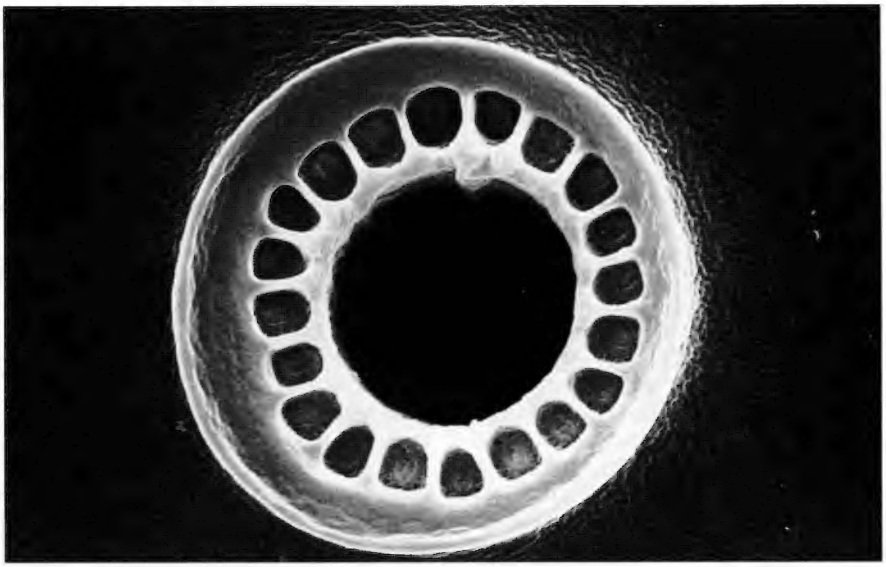


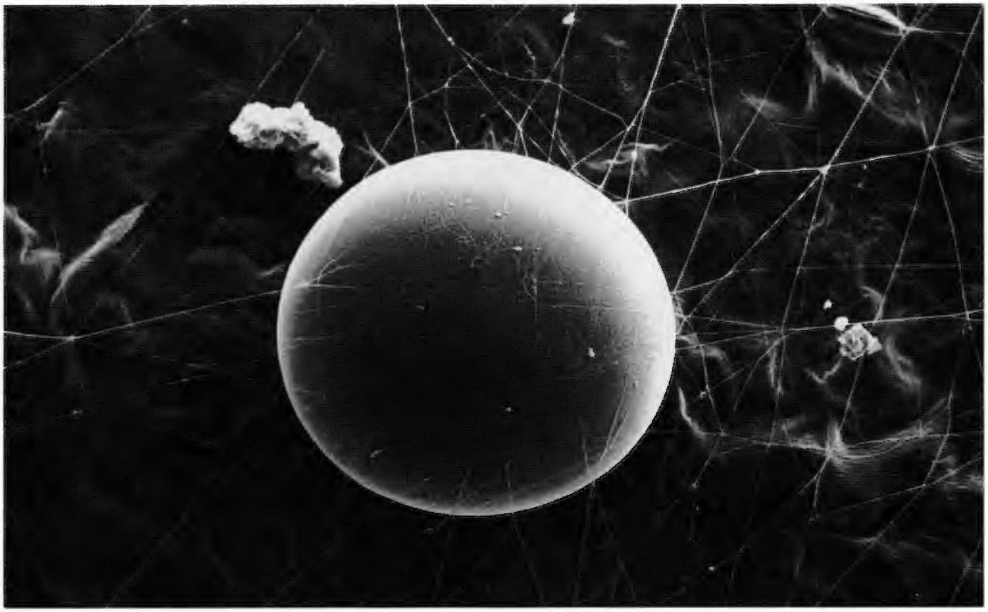
TOP: 2nd place, COLOUR, *Epidesma queenslandica*, Lycaenidae. **Genevieve Wallace**, NSW
BOTTOM: 1st place, People in Entomology. "Man Meets Weta". **John MARRIS**, NZ.

PHOTOGRAPHY COMPETITION WINNERS
GENERAL ENTOMOLOGY

TOP: 1st place, Stephens Island Weta cleaning antenna. **John MARRIS**, NZ
BOTTOM: 2nd place, Sciarid caught on Sundew. **John MARRIS**, NZ

PHOTOGRAPHY COMPETITION WINNERS
PHOTOMICROGRAPHY





TOP: 1st place, The Margarodid Hubcap. **Allan SJAARDA**, ACT
BOTTOM: 2nd place, Two Spotted Spider Mite Egg. **John MARRIS**, NZ

University of Western Australia, Perth, in late September. Here he had two presentations, both relating to wetlands, mosquitoes and human health, and also presented a paper at the workshop on `Wetland Systems for Wastewater Treatment held at Murdoch University. Prior to the conference, Richard was a guest lecturer for the WA Department of Health mosquito control training course held at Mandurah. Since his return, Richard has been running back and forth from central photocopying, to Canon, to computer, in a mad rush to complete his coloured photo-atlas of mosquitoes of southeast Australia, prior to this years Arbovirus Symposium / Mosquito Control Association Conference at the Gold Coast in Queensland.

Speaking of the Arbovirus/Mosquito conference, the staff are in the final throes of preparing their presentations. With 12 papers from the six staff attending, Medical Entomology is well represented this year. A diverse selection is being presenting including papers on mosquito ecology, mosquito distribution, dog heartworm, arbovirus monitoring, vector competence, microsporidia pathogens, and two papers on techniques.

Other recent meetings that the staff have attended include the Australian Entomological Society annual conference in New Zealand, where Cameron presented his Homebush Bay mosquito research. Cameron also presented a poster on behalf of **Merilyn Geary** and **Danuta Knihinicki** on a new record in Australia of the storage mite, *Aleuroglyphus ovatus*. Karen and Cameron both discussed their findings at the annual Ecological Studies Forum for the Olympic Coordination Authority. Late in October, Cameron, Richard and Stephen participated in the University of Sydney, Faculty of Medicine Research Conference at Wollongong.

Karen continues to have fun and games with her car while on field work. If she is not getting it bogged, then it turns into a catching mitt for runaway golf buggys.

Finally, the staff of Medical Entomology at Westmead Hospital wishes to all our colleagues, a merry Christmas and a safe and happy New Year (and hopefully no more closures of entomological research facilities).

Steve DOGGETT
Regional Councillor

NSW COUNTRY

Orange Agricultural College
University of Sydney

At Orange Agricultural College, The University of

Sydney **Lindsay Baggen** and **Zamir Hossain** are shifting to top gear for the field season in their projects on habitat management for enhanced biological control. Hot on the heels of the Lincoln University based conference, **Mike Bowie** from the Department of Ecology and Animal Ecology visited Orange to learn more about our syrphids (see photo previous page). He returns to New Zealand with plenty of interesting data and excess baggage full of samples to sort through! **Geoff Gurr** attended the 11th Australian Weeds Conference in Melbourne and was pleased to see the weed scientists are increasingly catching on to the idea of integrated management. However, the strong emphasis on herbicide resistance in transgenic crops was arguably not such a positive sign.

The major entomological news from the city campus of University of Sydney is the shipment of 200,000 special fruit fly pupae to the new Tristate Sterile Fruit Fly Factory at Camden. This strain carries bright white markings which allow it to be readily distinguished from the wild strains with which it breeds. Shortly, over 20 million sterile fruit flies per week will be produced for the control and eradication of the Queensland fruit fly in NSW, Queensland and South Australia. The factory, situated at the Elizabeth Macarthur Agricultural Institute of NSW Agriculture, will be "officially" opened on November 18th.

Agricultural Research & Veterinary Centre Orange

At New South Wales Agriculture **Graham Thwaite** is settling back into the routine after his trip to the Florence Congress and also travelling more widely in Europe looking at apple pest control with an emphasis on codling moth. Meanwhile, staff at the Agricultural Research and Veterinary Centre are watching their former volley ball court where a new building is expected to appear by early next year to house the Rydalmere insect collection and taxonomy team.

Mark Smith of the Institute for Horticultural Development (Vic.) ventured up to New South Wales for a seminar/field day for wine grape growers held at Cowra in October. His presentation on light brown apple moth management was very well received and the audience remained attentive even during the afternoon downpour!

Geoff GURR
Regional Councillor

Murray-Darling Freshwater Research Centre Albury, NSW

Tim New visited the area in July to work with **John Hawking** on their paper investigating the zonation of odonates in the Kiewa River.

Phil Suter, a mayfly specialist based at the Wodonga campus of La Trobe University, presented a short course on caenids at the centre in September. **Al Gibbs**, from Charles Sturt University in Bathurst, is currently staying at the centre to examine the invertebrate voucher collection for identification purposes. Students from the Albury campus have recently accessed the voucher collection for a curatorship course involving photography of specimens and establishment of a database.

Terry Hillman, Robert Cook and **Garth Watson** are currently working together on a project monitoring the effects of flooding on macroinvertebrates in billabongs and flood plains around the Ovens River.

In late October **John Hawking** spent a few days in Canberra presenting the quality control/quality assurance bioassessment project for the Monitoring River Health Program. The MRH agencies have been collecting invertebrates from a variety of aquatic habitats. John has the task of cross-checking samples sent by the agencies and now has **Diane Crowther** assisting him on this project.

The Ninth Taxonomic Workshop is being held at the CRC's Murray-Darling Freshwater Research Centre (Albury) from the 18-20 February 1997 (see details in "Coming Events" below)

John HAWKING
Regional Councillor

NORTHERN TERRITORY

Territory entomologists are still reeling from the sad loss of **Colin Wilson** both from the Department of Primary Industry and Fisheries and as Regional Councillor of the society. This is my first go at Regional Councillordom and I apologise to any NT members I may have omitted to contact for *Myrmecia* contributions. I was just about to contact **Veronica Brancatini** in Brisbane for an up to date list of members from the Society's database when she walked into the room with **Ted Fenner**. I promise that no-one will miss out on a chance to contribute to the next *Myrmecia*.

Parks and Wildlife Commission of the NT Wildlife Management Section

After continuing to deliberately place his biological control release sites in the path of low-flying helicopters, thus jeopardising the future of long-term herbicide research programs, **Colin Wilson** has decided to voluntarily commit himself for re-education in an institution that deals with habitual reprobates such as himself. He has resigned from his position of leading the DPIF Biological Control Research Group and will now be trying to manage weed problems in Territory Parks. He will be keeping his finger in the entomological pie by maintaining his involvement in the ACIAR-funded biological control program against Siam weed (*Chromolaena*) in Timor, and looking at invertebrate conservation if he gets time. Colin has just returned from attending the IV International Workshop on Biological Control and Management of *Chromolaena,* which was held at Bangalore in India. This prevented him from defending his basketball wooden spoon at the Centralian Masters Games.

Department of Primary Industries and Fisheries Weeds Branch

Colin Wilson left the Biocontrol Team at DPI&F and is now with Parks and Wildlife just around the corner. We miss him very much but we still have our more or less regular **Tim Tam** session with him. To escape the "build up" **Bertie Hennecke** spent a week in Brisbane to discuss his PhD-study with his supervisors at the University of Queensland. He also visited CSIRO at Long Pocket to inform and discuss the pathogen projects with **Wendy Forno**. **Grant Flanagan** does not spend a lot of time in his office anymore. If he is not in a meeting or on a trip interstate, he is very busy with his new responsibility as senior entomologist of the biocontrol section.

Quarantine and Inspection Branch

Ted Fenner enjoyed some sunny winter weather in Canberra in July while attending the inaugural meeting of the NAQS Scientific Planning Group and the Quarantine Entomologist' Meeting (reconvened after a year's lapse following reorganisation of the Quarantine Service in four States). Also, thanks to some slick organisation by **Glynn Maynard**, Ted managed a flying visit to **Ted Edwards** and **Michael Braby** in ANIC with some specimens for them and others he wanted identified (and, by golly, they were on the spot)!

Then it was time to prepare seriously for the start of the mango season in September and try to ensure that growers and packers were geared up and ready to take the necessary measures to minimise the risk of fruit fly infestation being found at destination, last year having been quite bad in that way. Consistent with this, various sections of DPIF along with personnel from both Health and Environment put in a special effort to try and ensure appropriate disposal of spent insecticide following post-harvest treatment. We definitely don't want a whole bunch of belly-up ibis and magpie geese polluting the orchards!!?

Northern Australia Quarantine Strategy Branch

Glenn Bellis has been playing musical offices again. After using **Stuart Smith's** and **Graham Young's** office while they were on leave, Glenn moved into **Grant Flanagan's** office while he was on leave. Things were looking a bit bleak for a while as no-one was going on holidays when **Colin Wilson** decided to resign from the DPIF. Colin's departure caused a reshuffle of office space in biocontrol and Glenn has been able to capitalise on this, managing to obtain a semi permanent place to sit. The good news is that AQIS have promised to provide some permanent office and lab space for NAQS staff at Berrimah in the near future.

In between accommodation negotiations, Glenn squeezed in a visit to Indonesia to attend a meeting of Indonesian scientists as they updated their list of agricultural pests not found in Indonesia.

Entomology Branch

Graham Young attended the AQIS workshop on the direct release of insects for biological control of weeds in Canberra on the 3rd and 4th of October. IPM on pests of snake beans has been extended to cultural control of root knot nematodes during the coming wet season. After travelling to all corners of the globe earlier in the year, **Stuart Smith** contented himself with a couple of domestic trips. He visited Alice Springs with Plant Pathologist **Rex Pitkethley** to investigate the mysterious death of a number of native trees near the Olgas, at least that is what he is telling us. He also went to Adelaide to talk about the boiling of fruit fly maggots.

CSIRO Division of Wildlife and Ecology
Tropical Ecology Research Centre

Tracey Churchill is being inundated with enquires about the current mouse spider plague in Darwin. She has managed to find someone who collects spider venom as an outlet for all of the specimens people keep giving her.

One of **Alan Andersen's** converts to antology, **Ben Hoffman**, is about to submit his honours thesis entitled `Ecology of the introduced ant, *Pheidole megacephala*, within the Howard Springs region of Australia's monsoon tropics'.

While **Ros Blanche** looks into beetles at the Kapalga fire site, **Jenny Webber** has been recruited to help out Tracey with her research into pitfall traps.

Territory Health Services
Medical Entomology Branch

The Branch, and particularly **Gwenda Hayes**, **Barbara Love** and **Ross Nowland**, have been up to their arm pits in swamps over the last few months surveying and organising control operations for the salt marsh mosquito season which started earlier than in recent years. **Peter Whelan** has just returned from three months absence to do a review of the NSW Arbovirus Surveillance Program for **Terry Carvan**, which involved comments from leading arbovirus surveillance experts in USA. He also recently helped **Tony Wright** with the WA Mosquito Control Course in Mandurah where he caught up with other presenters including **Richard Russell, Mike Lindsay** and **Annette Broom. Jane Carter** of the MEB attended the course as a participant. The weekend after the course he inspected Ross River virus case areas in the south west of WA with **Richard Russell**, which also included the tall forests and two or three wineries. **Gwenda Hayes** has just finished amending a report on the Alice Springs mosquito surveillance results to include the *Culex globocoxitus* component of the Alice Springs fauna. **Gwenda** will be in charge of the Branch for two weeks while **Peter Whelan** is away including a weekend in Adelaide to attend the 25th reunion year of the Agricultural Science class of '71. **Andrea Wilson** has completed and been awarded her Honours thesis on *Aedes funereus*. **Martin Shivas**, **Brian Montgomery**, **Gwenda Hayes** and **Peter Whelan** will all be attending the arbovirus and mosquito control conference on the Gold Coast in November.

Northern Territory University

After finishing the final report to RIRDC on the project "The effect of native vegetation on the cashew arthropod fauna with particular reference to the most important pest - *Helopeltis pernicialis*", **Renkang Peng** is getting on with his next project "Utilisation of the green ant *Oecophylla smaragdina* to control cashew insect pests" which is supported financially by RIRDC and the University. Peng wastes 5 hours on the road every week to travel to and from Wildman River Cashew Plantation and Howard Springs for field experiments and observations. He hopes to one day buy a caravan he could use down there for overnight trips. Can anyone help him out?

In collaboration with **Keith Christian** and **Karen Gibb**, Peng is writing a paper for the International Cashew and Coconut Conference he is attending in Dar Es Salaam, Tanzania in the near future.

NT Museum

Graham Brown and **Gavin Dally** visited Melville Island in October as part of a team collecting fauna associated within or near freshwater streams and ponds on the Island. Although the material has not been fully sorted as yet there appears (not surprisingly) to be several new species collected including numerous, you guessed it, tiphiids and an unknown dragonfly.

Graham and **Jenni Risler** also collected material in Litchfield National Park for the Museum's new Natural Sciences Gallery which is to be opened before Easter 1997.

Glenn BELLIS
Regional Councillor

S.E. QUEENSLAND

Queensland Institute of Medical Research

QIMR has once again been actively involved in the organisation of the Arbovirus Research in Australia/Mosquito Control Association of Australia Conference. The 7th conference is being held at the Mercure Resort on the Gold Coast, during the 25-29th November. At present there are 140 registered participants, with strong contingents from the United States of America, Tropical Asia and naturally Australia. Eighty two papers and 14 posters have been scheduled for presentation, with late registrants expected.

Michael Brown's evaluation of the copepod *Mesocyclops aspericornis* and the large predacious

mosquito larvae *Toxorhynchites speciosus*, as integrated predators of mosquitoes in tyre habitats in Queensland, has been published in the J. Am. Mosq. Cont. Assoc. 12: 414-420. Introduced *M. aspericornis* and naturally occurring *T. speciosus* were found to form a compatible predator pair for reduction of larval *Aedes notoscriptus* and *Culex quinquefasciatus* in tyre habitats. The study found that over 22 months of field survey, 97% of tyres without predators contained mosquito larvae, at a median density of 43 larvae/litre. By comparison, 51% of tyres containing both predator species held mosquito larvae at a median density of 4 larvae/litre.

Alan Fletcher Research Station
Dept. Natural Resources

Michael Day has been appointed to the position of program leader for the biological control of *Lantana camara* and *Lantana montevidensis*. Mass rearing and release are currently under way for a number of insects.

Rachel McFadyen has been involved in an AQIS workshop to develop guidelines for the direct field release of biocontrol agents without first being reared in quarantine.

Fe Ambatali has recently been appointed as technician to replace **Kylie Webster**. She is working on the rearing and host-testing of parthenium biocontrol agents.

Entomology Department
University of Queensland

Ekhlass Jarjess and **Brian Weiss** are doing their Postgraduate Diplomas in the department. Ekhlass is working on a chemically-defined, synthetic diet for *Trichogramma australicum*; Brian is working on inca cells and ecdysis triggering hormone in *Helicoverpa*.

Marjeta Basar is spending the next year in the department to work on her Ph.D project with **Gimme Walter**, which is comparing the sounds made by Slovenian and Australian green vegetable bugs (*Nezara viridula*).

Susan McGrath and **Helen Nahrung** have started their honours year. Susan's project is examining the role of arthropods in the decomposition of household waste and is being supervised by Prof **Gordon Gordh**; Helen's project is supervised by **David Merrit**, and deals with "Hatching of *Weiseana barkeri* Jacoby (Coleoptera: Chrysomelidae), a potential biocontrol agent of prickly acacia'. **Bill Palmer** is also a supervisor on the project.

Jennifer Marohasy was awarded the South East Queensland Rural Woman's Award for her services to the north Queensland rural community in helping the fight against Rubber Vine. Jennifer, while working for the Queensland Dept of Lands in the 1980's, collected potential biological control agents in Madagascar for use against rubber vine.

Nurindah's project, "Learning behaviour, physiological conditions and external stimuli which influence oviposition by *Trichogramma australicum*", has been upgraded to PhD status. **Graham Floater** will head back to England on 18 October, after completing his PhD on the "bunny-tailed moth" *Ochrogaster lunifer*.

Nicharat Swasdipan has begun a postgraduate diploma project with **Paul Ebert**. She is studying under a five year Thai government scholarship and will return to a university staff position upon completion of her PhD. She is continuing with the *Bactrocera tryoni* olfaction project that was initiated last year by **David Schlipalius** (under **Bronwen Cribb**). She is well on her way to constructing a cDNA library of genes expressed in the fly heads. (The antennae were just too small.) They are particularly interested in identifying olfactory receptors, the genes for which have not previously been isolated from insects.

Joan Bryan will be going to Manila on 9th October and returning 13th, in relation to a community based malaria control program based in Agusan Del Sur.

Welcome back to **Margaret Schneider** who returned from a successful combined research /conference trip to the U.S.A and Europe.

David Headrick from UCLA Riverside is currently visiting the Department. David will be here for one month from 5 October to work with **Gordon Gordh** on their entomological dictionary.

Ma Deling (Assistant Professor and Vice Head of the Department of Plant Protection, Shandong Cotton Research Centre, Shandong Academy of Sciences, P.R. China) will be with us for one year. Her research interests are methods to control cotton bollworm, effects of chemical applications to cotton, and the distribution of cotton aphids.

Michael Ryan is now a full time employee of Kinhill Engineers P/L. Michael is working as a Environmental Scientist / Consultant.

Jenny Beard, **Chris Pavey** join **Claudina Rodriguez** and **Mark Stanaway** on a 'small' AQIS

project for **Myron Zalucki**.

Steve Malcolm from the University of Western Michigan has returned home to Kalamazoo via Florence after visiting **Myron Zalucki** in the Department for 2 weeks. They undertook the second part of an experiment on monarch-milkweed interactions.

Queensland Museum

Ten years have passed since the Queensland Museum moved to its "new" residence at the Queensland Cultural Centre, South Brisbane. We recently celebrated our anniversary with a display showcasing early and recent items from the Museum's collections. **Geoff Thompson** is seen here with part of the display, a drawer of butterflies collected before 1892 by William H. Miskin. Miskin, an early trustee of the Museum, described many species of Australian butterflies and moths and two butterflies were later named after him. After he ran off with his maid in September 1891, his wife sold his insect collection and 200 volume library of fine books to the Museum in 1892.

Geoff Thompson displays a drawer of butterflies collected by William Miskin (see text)

The anniversary celebrations also included an enthusiastic party where more than one member of the Entomology and Arachnology Sections gave noteworthy performances on the dance floor (and table).

Geoff Thompson has continued his winning ways taking out first in the coloured and second in the black and white sections of the scientific illustration competition at the combined Australian and New Zealand Entomological Societies Conference at Christchurch.

Norm Platnick, **Vladimir Ovtsharenko** and **Kefyn Catley**, American Museum of Natural History, New York, are arriving from the US on November 19. They are running on PEET and ABRS funds and are working on ground hunting spiders of the superfamilies Gnaphosoidea and Clubionoidea. They will be based at the Museum and **Robert Raven** will accompany them on field trips to north Queensland, New South Wales and Victoria. After that they will be visiting state museums in Canberra, Melbourne, Adelaide, Perth and possibly Darwin.

As part of an ongoing Queensland Museum survey project in connection with a proposed dam, **Geoff Monteith**, **Chris Burwell**, **Geoff Thompson**, **Susan Evans** and **Heather Janetzki** (Vertebrates) will sample the insect fauna of boggomosses in November. They will also empty pitfall traps laid by **Phil Lawless**. The boggomosses are a series of small, elevated peat bogs or swamps near Taroom, on the Dawson River. They are fed by mound springs which are leakages from aquifers of the great Artesian Basin. In December, **Geoff**

Monteith and **Doug Cook** will be travelling to Mt. Abbot and Mt. Aberdeen, two poorly known peaks west of Bowen.

CRC for Tropical Pest Management

The Centre welcomes new staff members **Lynne Grbin** as a post-doctoral Research Officer with the Field Analysis and Application team. Lynne is from South Australia and her work involves continuing a project initiated by **Mark Walton** on developing a production break strategy for tomato leafminer in Queensland. As well, she will be coordinating a short course on "Management of Beneficials in Pest Management Systems" in November 1997.

Graham White has accepted a part-time appointment as Short Course Coordinator at CTPM, to add to his work on consultancies and on his property near Toowoomba.

Central Queensland cattle producer, **Joy Deguara**, Nebo, is the winner of the $5000 inaugural DPI Elaine Brough Bursary for Rural Women.

Jim Hanan has devised a way of simulating insects moving through 3D space containing virtual plants. With existing capability for simulating insects moving over the surfaces or tunnelling inside plants, this opens the way for "time & motion" studies of all life stages of insects, including searching by flying adult parasitoids. His prototype virtual insects are two iridescent butterflies flapping at random through a stand of beans interspersed with random weeds. With the CRC for TPM Insect-Host Discussion group members, he will start to define behavioural rules that will more closely simulate foraging behaviour.

Centre staff have attended a number of conferences recently. **Glenn Graham** attended the Third Horticultural Industry Technical Conference, Gold Coast 1996. **Jim Hanan** attended the SIGGRAPH 96 conference (23rd International Conference on Computer Graphics and Interactive Techniques) in August at New Orleans. With 30,000 people attending, the conference proved an excellent opportunity for networking. **Gunter Maywald, David Yeates, Margaret Schneider** and **Myron Zalucki** attended the XX International Congress of Entomology in Florence. Gunter also attended another conference in Copenhagen, while Myron returned to Brisbane just in time for the Centre's fifth year review on 3-5 September. The team demonstrated the Centre's software during a workshop at the congress. **Bob Sutherst** was in Germany for the IGBP GCTE Synthesis workshop on 11-23 September. **Leon Scott** and **Glenn Graham** attended the Genetics Society of Australia 43rd Annual Conference in Melbourne.

Recent visitors to the Centre have included **Hugh Dingle** from University of California Davis, who gave a seminar on Genetic control of Insect flight polymorphism's before attending the 6th International Congress of Behavioural Ecology in Canberra. **Toni Withers** also attended this congress, presenting her research on Hessian fly field dispersal and *Zygogramma bicolorata* feeding behaviour as posters.

CSIRO Division of Entomology
Long Pocket Laboratories

Jan Kvet, an Ecologist with the Institute of Botany, Academy of Sciences of the Czech Republic, will be visiting the Long Pocket Laboratories in October, as part of his McMaster Fellowship with the Division of Entomology. Jan will present a seminar 'Do littoral wetlands buffer nutrient movements across the land water boundary? Implications for weed invasions', and visit a constructed melaleuca wetland and a mature melaleuca wetland south of Brisbane with **Margaret Greenway** from Griffith Uni.

Tony Wright visited Thailand and Malaysia as part of the ACIAR water hyacinth project. In northern Thailand, one of the major release sites for agents is now showing the effects of the agents, with water lilies returning to areas previously occupied by dense weed mat. Access channels used by local boats to get to the main lake for fishing are also navigable, although it is doubtful whether the fishermen are giving any credit to our insects.

Tim Heard made a visit to the CSIRO Mexican Field Station to undertake field studies on the next wave of insects for biological control of *Mimosa pigra*. Progress is being made with a suite of lepidopterans which have made their first appearance in Brisbane quarantine. On the way home, Tim dropped into **Jack DeLoach's** lab in Texas to look at mesquite biological control agents and following a collecting trip, hand carried cultures of two species back to Brisbane.

CSIRO welcomes **Rieks van Klinken** who commenced with the Woody Weed project in September for a term of 12 months. He will spend most of his time working with **Tim Heard** on

biological control of mesquite. He is off to a flying start with a coreid bug and a cerambycid borer from Texas, two of the largest insects ever to be seen in Brisbane quarantine. Rieks recently completed a PhD with **Gimme Walter** at the Uni of Qld on drosophilid ecology, taxonomy and phylogeny. Prior to that Rieks worked with **Penny Greenslade** on Macquarie Island surveying the invertebrate fauna.

Martin Steinbauer, who is starting with the mimosa project in Darwin, dropped into the Brisbane labs in September to see that side of the project. **Ian Radford** also paid a flying visit and gave a seminar. Ian will be working on the ecology of mesquite in north Qld with an eye on evaluation of future biological control agents.

John Lester has migrated from Canberra to join **Mic Julien's** water hyacinth team in Brisbane. He works with **John Stanley** and **Andrew White** on *Acigona infusarella* for biological control of water hyacinth.

Sione Mohi from the Ministry of Agriculture and Forestry in Tonga is spending eight weeks at Long Pocket for training in biological control. His training is jointly funded by GTZ/SPC.

Marc Coombs, now project leader for biological control of the green vegetable bug project, has moved to Stahmann Farms near Moree to live among 66,000 pecan trees. He aims to establish and monitor impact of *Trichopoda giacomelli* on GVB and native pentatomids. He will also work on the cerambycid stem borer pest of pecans. **Peter Jones** has joined the GVB project from the fruit piercing moth work.

Eric Rumbo is now established and operating and inspecting electro antennograms of fruit flies and buffalo flies. The second half of the chemical ecology unit, **Richard Vickers**, will move permanently in December.

Kim Sprott has tired of creating virtual plants and has taken one year off to create a real human baby. Future visitors to the virtual plants team include **Tony Greaves** from HortSci NZ and **Bruno Andrieu** from INRA near Versailles who will visit at the end of October to discuss potential collaboration. His group is working on simulating radiation and microclimates in plant canopies.

Toni WITHERS
Regional Councillor

Department of Primary Industries, Toowoomba

Congratulations to **David Murray** who was awarded the Australian Cotton Growers Research Association Researcher of the Year Award at the Australian Cotton Conference held on the Gold Coast in August. The award recognises David's work in cotton pest management, particularly in IPM and the biological control of heliothis.

Bernie Franzmann attended the International Conference on Genetic Improvement of Sorghum and Pearl Millet at Lubbock, Texas, in September and then toured Texas, Arizona and California looking at developments in the management of silverleaf whitefly.

Gordon Simpson attended the First Joint Australian and New Zealand Entomological Conference held in Christchurch, NZ in August. He presented a poster on "Predators as bioindicators in Australian cotton" in conjunction with **David Murray, Richard Lloyd** and **Kerry Rynne**. The conference marked the end of Gordon's three year term as Regional Councillor for SE Queensland (see photo 2, page 18).

Department of Primary Industries, Applethorpe

Frank Page reports that monitoring of apple orchards, conducted as part of an interstate HRDC project, has shown that a low number of adult Fuller's rose weevil survive the winter at Stanthorpe. Frank is also trialing a day-degree model for codling moth, developed in Victoria by **David Williams**, on apples.

Department of Primary Industries, Bundaberg

Spring is the time for visitors to Bundy. **Peter Ridland** and **Wendy Morgan** (Victorian Institute of Horticultural Development) came in early September to talk with horticultural staff at the Research Station. **Paul de Barro** (CSIRO) passed through in early October searching for silverleaf whitefly. He did not find any on crops, but found heavily parasitised native *Bemisia tabaci* on weeds near the beach. **John Rogers** and **Lynne Grbin** from the CTPM visited **Iain Kay** to discuss potato moth problems in tomatoes.

Department of Primary Industries Central Queensland

Dismay does not adequately describe the reaction of cotton growers in the Central Highlands on hearing that their district had been excluded from the area approved for the commercial production of INGARD cotton this season. GMAC

has some concerns about the use of the transgenic cotton in the area. In a bid to redress the situation a research team including **Ian Titmarsh, David Murray, Richard Sequeira** and **Mike McCosker** will be conducting trials of INGARD cotton at several locations in the Central Highlands. The team will be assessing the value of various refuge crops in the management of heliothis, amongst other things.

Bureau of Sugar Experiment Stations

Les Robertson attended the 20th International Congress of Entomology during 25-31 August at Florence, Italy. He made visits to laboratories in the UK and USA after the congress.

Peter Allsopp attended Sugar 2000 and presented part of a paper on novel methods for controlling pests and diseases (coauthor was **John Manners**, CRCTPP). He also manned two poster papers describing potential threats from yellow sugarcane aphid and work on the development of transgenic sugarcane with increased resistance to canegrubs.

Peter Allsopp, Peter Samson, Keith Chandler and **Liza Miller** attended the joint meeting of the New Zealand and Australian Entomological Societies in Christchurch. **Peter Allsopp** presented a paper on management of pink ground pearls using tolerant cultivars and Liza presented a paper on the role of the raster and associated structures in canegrub biology. **Peter Allsopp** was again elected as Chief Editor for the Australian Entomological Society. **Peter Samson** and **Keith Chandler** later visited the Lincoln laboratories of AgTec, and Keith visited laboratories of the New Zealand Wool Research Institute. Liza visited labs in Lincoln University.

University of Queensland - Gatton College

Errol Hassan and **Neil Heather** both attended the International Congress of Entomology at Florence in August. They presented an oral paper each and shared a poster. They both enjoyed the congress and the city. Errol travelled on to Europe and north America. Neil returned to Australia, having gone to Florence by way of two International Atomic Energy Agency activities. One was a Research Coordination Meeting on Irradiation as a Quarantine Treatment for Agricultural Commodities in Beijing and the other a one month assignment in the Department of Agriculture in Bangkok involving in part a two week training course on market entry quarantine for senior research and regulatory quarantine scientists from 11 Asian countries.

Iain KAY
Regional Councillor

NORTH QUEENSLAND

Medical entomology in North Queensland is very much alive and kicking despite the departure of **Drs P.Weinstein** and **M. Hearnden** (Zoology Department) for greener pastures. The Anton Brienl Centre (now the Department of Public Health and Tropical Medicine) is now in the forefront of tropical health entomology for North Queensland.

Anton Breinl Centre, Townsville.

The Centre has been very busy in 1995 and 1996 with the enrolment of 12 postgraduate students for "Entomology in Tropical Health" block course run by **Jeffrey Hii, Richard Russell, Rick Speare** and **Gavin Hammond**. At the same time, **Deon Canyon** has been accepted in to a PhD program at James Cook University under the supervision of **Jeffrey Hii**. He will be studying ecology and biology of the dengue fever mosquito, *Aedes aegypti* in Townsville. In collaboration with the City Councils of Townsville and Charters Towers and the Tropical Health Unit in Cairns, **Jeffrey Hii** and **Deon Canyon** will be examining the susceptibilities of geographic strains of *Ae. aegypti* to a wide range of insecticides.

Jeffrey Hii visited Hanoi and four other provinces in North and Central Viet Nam, from 10 August to 6 October 1995 and 15 June to 31 July 1996, to prepare a 4-year implementation workplan and provide technical assistance for an AusAID-funded malaria control project. The major aim is to collaborate with IMPE (Institute of Malariology, Parasitology and Entomology) in order to build the long-term capacity of the health services and of the people at risk, to control malaria. Other objectives include the development of entomological leadership in Viet Nam (including postgraduate training) and application of effective vector control methods for reducing malaria transmission. Currently, Viet Nam faces major problems in controlling malaria: (1) lack of equipment and expertise to ensure quality of artemisinin-derived drugs now produced in considerable quantities, (2) remote isolated and nomadic people have inadequate access to

treatment, (3) malaria parasites are exhibiting increasing degrees of multi-drug resistance and (4) insufficient people are using bednets, and lack of insecticides to prevent bites by *Anopheles* mosquitoes.

After Viet Nam, **Jeffrey Hii** acted as a WHO consultant for the Centre de Nationale Malariologie (CNM) in Cambodia from October 1995 to February 1996. He collaborated with CNM in planning, surveys, training and logistics for distribution of insecticide-treated mosquito nets, and promotion of community involvement in malaria prevention and control. Being strategically placed in Phnom Penh, he also worked with visiting mission teams from the European Union, World Bank, ODA and a timber company for financing malaria control programs. After a hiatus of 20 years, he helped to establish entomological programs for monitoring malaria vectors as part of an operational permethrin-impregnated bednet study in Kompong Cham and Kompong Speu (target population of 435,000). He also developed ToT manuals for bednet impregnation to be used by provincial health teams. Another exciting health promotion activity in which he participated with PSI was social marketing of hammock nets and redipping services by the private sector. Although hammocks are commonly used in Cambodia, hammock nets are not widely used by transient forest workers who form the high risk malaria group.

Jeffrey Hii has recently completed field work in the highlands of Papua New Guinea from 16 September to 31 October 1996. The major part of his work was to collaborate with the Health Department in the delineation of high-risk malarious areas at elevation range of 1000 to 1700 metres above sea level using rapid assessment methods, mapping known ranges of malaria mosquitoes and GIS methods. Whilst in PNG, he collaborated with **Moses Bockarie** at the PNG Institute of Medical Research, in investigating the effects of Diethylcarbamazine-Ivermectin induced ultra-low Bancroftian Microfilaraemia on the infectivity and mortality of *Anopheles punctulatus*, *Culex annulirostris* and *Culex quinquefasciatus* (WHO-funded study).

Jeffrey HII
Townsville

SOUTH AUSTRALIA

Department of Crop Protection
University of Adelaide

The Department of Crop Protection held its annual Postgraduate Symposium from 22nd-24th October at which the postgraduate students presented seminars on their research. After two and a half days of intense focus on research, the entire Department gathered for a delicious lunch at the Lirra Lirra Cafe.

Gary Taylor, John Jennings and **Latif Salehi** were the Departments representatives at the 1st Joint AES/NZES Conference in Christchurch, New Zealand. **Gary Taylor** returned via Brisbane where he visited **Charles Turner**, CSIRO Entomology to discuss work on the gall-forming symbiotic fly/nematode association and its potential for biocontrol of *Melaleuca quinquenervia* in South Africa and Florida, currently being investigated by Charles' group in Queensland. **John Jennings** and **Gary Taylor** have recently acquired some considerable spare time with the election of the new Queensland Executive. However, not wishing to relinquish all activity with the Society, Gary has taken up the position of SA Regional Councillor. The former Adelaide Executive, **Peter Allen, Gary Taylor, John Jennings, Paul Madge** and **Peter Bailey** and Regional Councillors, **Mike Keller** and **Bill Frost** wish the incoming Executive well for their term of office.

Andy Austin attended the Proteaceae and Beyond the Floras conference in Melbourne in early October which also coincided with the inaugural meeting of the Society of Australian Systematic Biologists. Andy has recently heard that he has been awarded a Dept of Science & Industry Travel Scholarship for scientific collaboration, and will use the funds to spend some time with **Jim Whitfield** at the University of Arkansas next year, studying the phylogeny and systematics of microgastrine wasps (including the biologically important *Apanteles* s.l.).

Azhar Saeed, a student from Andy's lab who is now back in Pakistan, has been awarded a PhD for his thesis on the systematics of the braconid wasp genus *Dolicogaster*.

In **Mike Keller**'s lab, **Dwi Iswari** submitted her thesis on the influence of host density on rates of parasitism of cabbage moth by *Cotesia plutellae*. She returned to Indonesia at the end of September. **Bijan Hatami** is returning to Iran in

early November after completing his thesis on the seasonal ecology of cabbage moth and its parasitoids. **Scott Field**, **Brigitte Tenhumberg** and **Greg Calbert** presented papers at the International Behaviour Ecology Symposium in Canberra. **Mike Keller** spoke on biological control in the garden at the Australian Rose Conference in Adelaide.

Rick Roush travelled to Malaysia to attend the international diamondback moth workshop. He, **Greg Baker** and **Mike Keller** have been working to coordinate a new national program of research on diamondback moth.

SARDI Entomology Unit

The entomology unit hosted **Uri Gerson** of the Hebrew University of Jerusalem, Israel, for 2 weeks in late August. Uri took at close look at some of the mites from the unit's acarology collection, and described a new genus within the Eupalopsellidae from the slidemounts. **Stewart Smith**, of the NT DPI, Darwin, visited the unit in mid-October and gave a rundown of the development of postharvest hot water disinfestation treatments used in the production of mangos in the NT. **Peter Bailey** spent 10 weeks in Spain, Portugal and Turkey between May and July investigating the cultural control of cutleaf mignonette. While in France, he discussed the project with the CSIROs **Jon-Louis Sagliocco** at Montpellier. Shortly after his return to Australia, Peter presented his work at the 11th Australian Weeds Conference in Melbourne. One issue to surface at the conference was concern over the possible creation of superweeds through the genetic manipulation of crop plants to impart resistance to specific herbicides. **Dennis Hopkins** has returned from a 10 week tour of WA and the NT, sporting a tan and photos of some very large trevally. Dennis travelled to Canberra to attend an AQIS workshop in October, where issues relating to the importation of various biocontrol agents were discussed. **Greg Baker** took part in a workshop at BCRI to finalise submissions to the NRA for the off-label use of a range of insecticides for control of WFT in a number of crops. Representatives from various organisations attended the workshop, called by **Steve Goodwin**. **Ken Henry** attended a dock biocontrol workshop in Perth in late July. Ken has released dockmoth at 15 sites in the southeast of SA over the past few months, and will assess their establishment in October. **Bill Frost** and **Peter Taverner** report a successful end to the 1996 navel export season. Very little quarantine action was taken against exported fruit during the season, and field surveys of mites turned up none of quarantine significance.

SA Water

Chris Madden and **Vladimir Tsymbal** will be attending the Third River Bioassessment Workshop in Canberra on 22-24 October. The first part of the Monitoring River Health Initiative project of the National River Health Program is drawing to a close and data from the first two surveys of macroinvertebrates in the streams of SA have been used to create models to predict the occurrence of invertebrates in monitoring impacted sites.

The first results for these sites make for interesting reading and some urban streams have surprisingly high numbers of taxa present. Vlad and Chris get to resume field work next autumn with the plan for the next stage of the MRHI to be discussed at the workshop. Meanwhile there are less than 300 samples from the third and fourth surveys to process! **Peter Schultz** has completed a report on the impact of the Heathfield treatment works on the Sturt River and continues to sample the Sturt and tributaries for the Patawolonga Catchment Board and also the Torrens for the Torrens Catchment Board. Soon to start is the monitoring of the Brukunga mine effect on Dawesley Creek. With the EPA requiring monitoring of waste water treatment plants in various parts of the state the macroinvertebrate lab is a hive of activity.

Citrus Board of South Australia

Andrew Green attended the VIII International Citrus Congress in South Africa in May to investigate the latest in citrus IMP strategies. A number of entomologists and research institutes were visited including the Outspan Citrus Centre, Nelspruit, the Vegetable and Ornamental Plant Institute, Pretoria and the Plant Protection Institute, Pretoria. A report on citrus pests has been prepared for HRDC for inclusion into a larger report covering all aspects of citriculture (No. CT626). Main issues of interest include methods of pest monitoring, use of IGRs and systemic insecticides, increasing interest in the use of spray oils and commercially produced biological agents and issues relating to the control of South Africa's

major pests, redscale, thrips and mealybugs. Other Australian entomologists in attendance included **James Altmann, Andrew Beattie, Megan Edwards** and **Craig Feutrill.**

Mike KELLER and Gary TAYLOR
Regional Councillors

TASMANIA

Department of Primary Industries

Lionel Hill and **Trevor Semmens** continue to develop a database whose prime purpose is to provide an annotated checklist of Tasmanian invertebrates for use in quarantine negotiations. Also primarily for quarantine use it will provide records of insects related to particular host plants or parts of host plants. Nevertheless the database will serve many other purposes such as species mapping and bibliography. Current emphasis is on entry of bibliographic records that provide explanations for the 10,000 species currently listed.

With Spring came a rush of Western Flower Thrips interceptions at interstate quarantine barriers. **Lionel Hill** and **Margaret Williams** have been busy training inspectors and preparing contingency plans. The single known infestation near Hobart remains well contained at a low level. Margaret completed a large scale demonstration for Japanese quarantine officials of the efficacy of methyl bromide fumigation against codling moth eggs on apples.

University of Tasmania

Amongst University members there is a currently a big interest in South America (perhaps as a way of avoiding Senator Vanstone's knife?). **Peter McQuillan** will be doing field work in Chile/Argentina in November-December as well as attending the Southern Biogeography conference. **John Madden** will be in Brazil for the first 3 weeks of November on an international Sirex consultancy; while **Hiedi Dungey** (who won the award for best student paper at the Adelaide conference) has moved to Chile on a three year contract as the eucalypt breeder for the Chilean Eucalyptus Cooperative. Hiedi's PhD thesis on herbivore interactions with eucalypt hybrids is currently under examination. **Terry Bowditch** has recently been awarded his PhD for work on stored-products entomology at the Cadbury chocolate factory in Hobart. It was tough work, but someone had to do it!

CRC for Temperate Hardwood Forestry
Forestry Tasmania and North Forest Products

Forestry continues to keep lots of entomologists busy. The winter tends to be a down time for those of us who work with chrysomelids, but **Tara Simmul** (PhD on the ecology and host-plant relationships of fire-blight beetle) and **Zoltan Lukacs** (PhD on the population phenology of Autumn Gum Moth) brave the cold and snow to look at those insects with winter life-cycles. The CRC for Temperate Hardwood Forestry has put in a bid for another 7 years of funding. In its new existence it would be called the CRC for Sustainable Production Forestry and would include new partners, including CSIRO Entomology, A.N.U., Griffith Uni, Southern Cross Uni and the Qld Forest Research Institute. At time of writing we have just been notified that the bid is through to the final round of interviews to be held in November.

The past few months have been a busy time for important conference travel (and not just junketing as some would have you believe). The state was represented at the International Congress by **John Madden** (Uni Tas), **Humphrey Elliott** (Forestry Tas.) and **Bob Hardy** (Private industry); while **Tony Clarke**, **Martin Steinbauer**, Tara and Zoltan (all CRC Forestry) flew the flag in New Zealand. The new Tasmanian Regional Councillor was chosen by default during that conference (i.e. grabbed by **Gary Taylor** over breakfast). Finally, a hefty contingent of the state's forest entomologists (**Humphrey Elliott, Jane Elek, Dick Bashford, David de Little, Tony Clarke** and **Carolyn Raymond**) spent the last week of September in Mt Gambier at the Standing Committee on Forestry, Working Group 8 [Forest Entomology]. This small meeting, involving most of the country's forest entomologists (about 15 in total), discussed numerous topics, including quarantine, pest outbreaks and disaster management. A slight detour via Coonawarra on the way home was thoroughly enjoyed by three of the Tasmanian delegates.

The final forestry traveller from the state was **Martin Steinbauer**, who has moved from forestry to woody weeds by landing a job with CSIRO Entomology in Darwin on the mimosa project. We wish Martin all the best for happy and successful career.

Father **Bede Lowery** of Devonport retired from the church on September the 13th and moved to Sydney.

Tony CLARKE
Regional Councillor

VICTORIA

Institute for Horticultural Development Agriculture Victoria

Peter Williams visited New Zealand in August to attend the International Postharvest Scientific Conference at Taupo. He gave a paper on fumigation of wildflowers. After the conference he visited **Alan Carpenter** at the Crop and Food Research Institute, Levin, to discuss work on aerosols, notably Floragas, for control of pests of ornamentals and vegetables.

David Williams visited WA for the Australian Apple and Pear Growers Association Annual Conference and took the opportunity to catch up with **Bill Woods, Stewart Learmonth** and **Henry Kotula** to talk about the WWAPM project and the possibility of a Cropwatch type project in WA.

Peter Ridland visited Gatton to speak with **Peter Deuter** about *Helicoverpa* management in sweetcorn and took the opportunity to discuss progress with the ACIAR brassica project with Peter, **Bronwyn Houlding, Sue Heisswolf, John Hargreaves, Brendan Nolan** and **Eric Rumbo**.

Mark Smith and **Peter Cole** attended the NZ and Australian Entomological Societies Conference in Lincoln New Zealand, 22-29 August. Mark spoke on the use of *Trichogramma* egg parasitoids in an IPM program for processing tomatoes, and Peter spoke on the efficacy of *Bacillus thuringiensis* sprays in grapevines. They both enjoyed the relaxed and friendly atmosphere and the high standard of science.

Mali Malipatil, assisted by **Alison Medhurst** and **Kelvyn Dunn**, has been conducting Western Flower Thrips (WFT) identification workshops for the IHD staff and the nursery growers. The workshops which provide hands on experience in identifying WFT and other local common pest thrips species from sticky traps, have proved very popular as 13 weekly sessions (each with 8 participants) have been conducted so far. Kelvyn has, from 1st October 1996, replaced Alison who has taken up a position with the Institute of Sustainable Irrigated Agriculture at Tatura.

Institute of Sustainable Irrigated Agriculture Agriculture Victoria

Alexandre Ilitchev is working at Tatura on the project "Large area mating disruption of Oriental Fruit Moth" with entomologists **Alison Medhurst, John Gooderham** and **Olga Timokhina**.

Museum of Victoria

Ken Walker and **Kathryn Sparks** (ABRS funded assistant) spent a week collecting bees at Uluru and surrounds. They were joined by **Alan Yen, Peter Lillywhite** and **Kate Mossip** to continue trapping invertebrates for the Horn Expedition 'revisited'. Alan and Ken will hopefully continue on to the Peterman Ranges with the Conservation Commission.

Ken Walker has recently taken over as Technical Editor of the *Australian Journal of Entomology*. He and **Catriona McPhee** have also been surveying pollinators of the Golden Moth Orchid at Altona. **Graeme Milledge** continues his work on *Nothofagus* invertebrates.

Visitors to the Museum included lightning visits from **Murray Fletcher** and **Andy Austin** and a more lengthy visit from **Bernard d'Abrera** and **Archie McArthur** (SA Museum - ants).

CSIRO Division of Forestry and Forest Products

John French is holding a workshop on termite baiting at Clayton on Remembrance Day. John's CSIRO Bait Box technique for termite control (http://www.wark.csiro.au/bbox.htm) has rapidly become standard industry practice across the country and this latest day will cover recent developments and introduce techniques for the use of toxins other than arsenic trioxide. John has also created quite a stir with his survey of termite damage through CSIRO's Double Helix Club. The club members are sending back survey forms from right across the country (even Tasmania, where there is no subterranean termite hazard!).

Don Ewart and **Libby Rawlinson** of Granitgard Pty Ltd (based at Forestry & Forest Products' labs) have recently returned from fieldwork at Townsville, working on tropical grade Granitgard and trapping a few termites along the way. If only they'd been able to start the work before the Wet set in they might have been able to take things a little easier. Still, a Sunday spent sailing with **John Holt** (CSIRO Soils) was a pleasant diversion. Part of their work will be reported at the Forest

Products Conference at Clayton in late November.

Nancy ENDERSBY
Regional Councillor

OVERSEAS NEWS

NEW ZEALAND

In April this year larvae of a species of tussock moth, *Orgyia thyellina* (Lymantriidae) were found in Auckland. *O. thyellina* is found in Korea, Japan, Taiwan, China and the Russian far east. Surveys conducted by the Ministry of Forestry showed that the tussock moth was confined to an area of about 7 km^2 in Auckland's eastern suburbs. It was found on a wide range of host plants and was damaging some of them (e.g. *Acer negundo* & *Rosa* sp.) quite extensively. Because entomologists at the NZFRI said that *O. thyellina* has the potential to be a very serious pest in New Zealand, the Ministry of Forestry, in conjunction with other government agencies and research organisations, produced an Environmental Impact Assessment. This assessment concluded that the moth did pose a very significant threat to New Zealand's trees and an eradication attempt was justified.

O. thyellina overwinters as eggs and the eradication campaign (dubbed "Operation Evergreen") using a combination of aerial and ground sprays of *Bacillus thuringiensis kurstaci* began on October 5th after months of planning a huge publicity campaign. The area being treated is 40 km^2 and a specially equipped DC6 aircraft has been brought over from Canada for the operation. At present they are planning six or seven sprays at approximately weekly intervals. The sight of a DC6 flying over Auckland at less than 50 metres above the ground at 200 knots is quite impressive

A few days before the spraying began, **Mike Cole** (AQIS) and **Rob Floyd** (CSIRO) visited the Operation Evergreen HQ in Auckland and the FRI in Rotorua to gain first hand knowledge of the whole operation from the discovery of the larvae through to the beginning of the spraying.

Further information on the tussock moth campaign can be found on the internet at: www.gwr.govt.nz/forestry/evergreen.

John TENQUIST
Overseas Correspondent

NEWS FROM AFFILIATED SOCIETIES

Entomological Society of Victoria Inc.

General meetings of the Society are on the third Friday of even numbered months (December sometimes shifts forward) and Council meets on the third Friday of the other months at LaTrobe University Carlton Campus, 625 Swanston St, Melbourne.

At the April meeting **Richard Marchant** of the Museum of Victoria discussed Aquatic Insects, their Orders, habitats and sampling/collecting techniques. A diversion occurred for about 10 minutes while comedian **Rod Quantock** descended upon us with 50 (well behaved) visitors who were patrons of one of his Melbourne mystery tours. The AGM in June saw the election of **Allan Kellehear** as President, **Daniel Dobrosak** as Secretary (and Magazine Editor) and **Ian Endersby** as Treasurer. Allan thanked outgoing President **Peter Cawardine** for his efforts over the last two years. Peter retains the position of Excursion Secretary. The speaker for the General Meeting which followed was **Ross Field** from the Museum of Victoria who outlined the design of the new Museum (to be located in the Exhibition Gardens, Carlton). A feature of the Museum will be the "Gallery of Life", an enclosure containing a temperate forest and including a 40m high Mountain Ash, with typical other flora and fauna.

In August, members visited the Abbotsford Annex of the Museum where **Ken Walker**, Curator of Entomology, hosted another most interesting and informative tour of the Museum's Invertebrate Collection. This has become an annual pilgrimage and never fails to attract a large audience.

The September Council meeting saw the election of **Ray McPherson** as the Representative Councillor to the AES. A collecting permit was obtained from the Dept of Natural Resources and Environment to facilitate the Society's survey collections to be conducted in National Parks. Invertebrate surveys are currently planned for the Kinglake National Park and the Cranbourne Annex to the Royal Botanic Gardens, Melbourne. The Council for Adult Education has asked the Society to present a short course in entomology in 1997 and **Ian Endersby** will coordinate this activity.

Ray MACPHERSON
Representative Councillor

FASTS NEWS

(Federation of Australian Scientific and Technological Societies)

The Prime Minister has invited FASTS to join his Science and Engineering Council (PMSEC), where the voice of 40,000 working scientists will be heard at the highest levels of policy formulation. There are 20 members of PMSEC: the Prime Minister, the Minister for Science and Technology, 6 ex-officio members and 12 members appointed in their personal capacity.

The ex-officio members are: The Chief Scientist, Dr **Don Williams** (Chair of ASTEC), Sir **Gus Nossal** (President of AAS), Sir **Arvi Parbo** (President AATSE), Professor **Fay Gale** (President AV-CC), Dr **Joe Baker** (President FASTS)

The invitation to join PMSEC is recognition of the value of the opinions of grass-roots scientists and technologists. I believe that FASTS will add a fresh and vital voice to PMSEC deliberations. Your ideas on issues to raise at PMSEC will always be welcome. Please keep this fact in mind as you encounter challenges, opportunities and particularly examples where scientific results have helped society.

On Friday September 13 1996, I participated in the first meeting of PMSEC under the Howard Government. Prime Minister, **John Howard**, chaired the entire meeting (except for one 10 minute period when he was called away). He showed interest throughout and was enthusiastic about what he had learned.

I do believe there is a distinctive role for FASTS to play in PMSEC. We bring an Australia-wide geographic perspective and our member Societies cover a wide range of disciplines. The members of the Societies cover an even wider range of types of professional employment. We have the potential to continue to illustrate the significance of Science and Technology to the sustainable well-being of Australia and of its people. Many politicians do not consciously appreciate the good things from science and technology even though they use and benefit from them in their everyday activities. Rather they see us as communicators of problems, of costly needs (education, training, job creation etc.) and as generators of problems - CFEs, chlorinated hydrocarbons, radioactive substances etc.

We have to regularly publicise the good things coming from Science and Technology throughout Australia, especially from Australian scientists and technologists, as distinct from overseas workers. Some people may believe that I put too much emphasis on the value of FASTS being on PMSEC. In the September meeting there were, in the morning session, the Prime Minister, 6 Ministers and 15 "Member" Parliamentarians. In the afternoon there was one additional Minister. They hear the debate; they become directly aware of FASTS. Since last Friday I have had two requests for meetings with Members and they would not have arisen except for the awareness raised on Friday 13th September.

The next PMSEC meeting will be in March 1997 and then the next in September that year. We have the opportunity to suggest items for each of these meetings - and work has already commenced to plan the March meeting: What do you consider should be the key issues to raise? They should be of national relevance. (We will discuss priority items at the November Council meeting.)

Our attention has been drawn to the fact that Minister McGauran has received one and one only letter relating to science communication since taking office. This is not much ammunition to take to his senior minister or to the party room.

For those who would like to strengthen his position in Cabinet discussions, write to:

The Honourable P McGauran MP
Minister for Science and Technology
Parliament House Capital Hill Canberra 2600
Fax 06 2734150

The impact of the Budget on S&T is still being weighed up. In a year when "a good result" was measured in terms of how little the cuts were, S&T probably came out as well as any other sector. Minister **Peter McGauran** seems to have done well in protecting his territory. The cuts that have been made in the general area of S&T largely fell in the portfolios of Education Minister **Amanda Vanstone**, and Industry Minister **John Moore**.

The full effect of Budgetary measures will become clearer when we see how the universities cope with life in Poverty Street, and industry responds to the huge cuts in incentives to undertake R&D. The effect on the CRCs is uncertain. Although direct funding was increased, the CRCs are sensitive to the climate in universities and industry. It is all part of a complex interlinked science and technology domino effect

in Australia.

One unsavoury aspect of the Budget was Treasurer **Peter Costello**'s statement that CSIRO was to receive an extra $115 million. This was pure "pea and thimble" stuff - CSIRO has to pay the whole amount back to Government through asset sales and a new "efficiency dividend" applied to research work.

Chief scientist **Michael Pitman** is still acting in this position, but the process of appointing a successor is warming up. Names are being considered and a decision is expected by the end of the year. FASTS's opinion will be sought - the consultative process is not complete. The new Chief Scientist will be announced shortly. The appointee will have a pivotal role in coordinating the national research effort. Government plans to make this a part-time position have potential dangers as well as potential strengths. By appointing a practising scientist (or science manager) to the position, the Government is ensuring that they are tapping in to the advice of a person firmly rooted in the science community. The new Chief Scientist will have experienced at first hand all the joys and frustrations of a career in science.

The dangers are obvious. How can a part-time appointee cover the sprawling world of Australian science in sufficient detail to offer credible advice to the Government? FASTS Council on November 21 offers an opportunity to question the Minister on this and other matters. Both **Peter McGauran** and the Shadow Minister (**Martyn Evans** MP) will address Council that day.

I believe that stories covering the benefits and good side of science should be a regular feature of your individual newsletters, and I would really love to see a regular column in every Australian Newspaper on such topics. Could you identify at least one - but preferably several, member(s) of your Society, who would act to gather such information and develop the communication links with the public and the media?

It is clear that one of the greatest challenges in this age of sophisticated technology is to communicate effectively and efficiently. I believe we can achieve it best by "starting local", starting within individual scientific Society groupings, and building to regional, State, Territory, and National levels. I am confident that FASTS could compile an accessible central reference data-base of all such items.

Senate submission

FASTS has been invited to make a submission to the Senate Committee on Education Employment and Training, on the Higher Education Amendment Bill 1996 which deals with HECS repayments. We will appear in person on Friday 8 November, jointly with the Deans of Education.

ANZAAS

ANZAAS was a disappointing affair this year, with less than 180 delegates attending the three day meeting in Canberra. It's a far cry from less than a decade ago, when ANZAAS meetings regularly attracted audiences of 2,500. FASTS is discussing ANZAAS with a range of organisations, to see if there are ways of injecting new life into what was the premier public science event of the Antipodes. It will need concerted action from the science community if ANZAAS is to be saved.

Parliamentary members with S&T qualifications

An encouragingly high proportion of MPs hold qualifications in science, engineering, medicine and health. Parliament has 224 members, and they collectively hold 38 qualifications in S&T. Several members have dual qualifications. FASTS met with the recipient of a science degree recently, Mr **Martyn Evans**, who is shadow spokeperson for Science and Information Technology. **Toss Gascoigne** and I had a preliminary discussion with him on how FASTS might usefully provide ideas on S&T policy.

Deans of science

Congratulations to the Deans of Science on formalising their organisation. They have very quickly established a media presence in science policy. FASTS has addressed their last two annual meetings, and regularly discusses issues with new President **John Rice** of Flinders University

Joe BAKER
President
FASTS

ELECTRONIC NEWS

NEW SOCIETY HOME PAGE!

The University of Queensland has added a page on behalf of the **Australian Entomological Society** detailing membership, officers of the Society, publications of the Society and other useful information. Members are invited to visit the site and tell your friends about it. You will find it at:
http://www.uq.edu.au/entomology/aes/intro.html

OTHER NEW ADDRESSES

Agriculture Western Australia, Entomology Branch is now at:
http://www.agric.wa.gov.au/progserv/plants/ento/

The page has the usual staff info as well as detail about our 40,000 specimen Microsoft Access Insect Collection Database and a key to Insect Pests of Extensive Agriculture.

PLATYPUS LAUNCHED

Platypus, a comprehensive, relational database package for taxon based faunal work, developed by ABRS, was launched in August. A free demonstration version, details and an order form are available on the Net at: http://www.ento.csiro.au/platypus/platypus.html

DIGITAL AGENDA: INFORMATION SUPERHIGHWAY OR PRIVATE TOLL ROAD?

Robert L. Park of the American Physical Society was recently quoted on TAXACOM with the following disturbing development in the USA on legislation controlling access to electronic databases. Members may wish to comment via *Myrmecia*.....

"Few people in the academic community noticed when the "Database Investment and Intellectual Property Antipiracy Act of 1996" was introduced last Spring. Not many are aware of it yet; H.R.3531 has been the subject of no votes, no debates, no hearings. Yet, it would create a new form of intellectual property protection for compilations of information, ending the policy of full and open exchange of scientific data. Database publishers would have an absolute monopoly on their compilations, and the information highway would have a toll booth every few miles. It gets worse: even if H.R.3531 never passes, we may still get the toll booths under an international agreement. At the insistence of the U.S. delegation, a "Draft Treaty on Intellectual Property in Respect to Databases," incorporating the same provisions as H.R.3531, is scheduled to be taken up at a Diplomatic Conference in Geneva in December -- without the views of the US academic community ever having been solicited. The "digital agenda" is being opposed by the Association of American Universities, the National Academy of Sciences and the Association of Research Libraries among others."

COMING EVENTS

Joint Conference of the Society of Australian Systematic Biologists
and the Australian Systematic Botany Society
The University of Adelaide
29th September to 3rd October 1997.

The conference will comprise of four special symposia : computing in systematics, east-west biogeography, the interface between systematics and ecology, and molecular systematics.

For details, join the Society of Australian Systematic Biologists (see announcement under NOTICES) by emailing Mike Crisp at ANU (Mike.Crisp@anu.edu.au).

Murray-Darling Freshwater Research Centre
Ninth Taxonomic Workshop
Albury
18-20 February 1997

The Ninth Taxonomic Workshop is being held at the CRC's Murray-Darling Freshwater Research Centre (Albury) from the 18-20 February 1997. The workshop will focus on the taxonomy of Trichoptera, Ephemeroptera, Chironomidae and Plecoptera. **David Cartwright, John Dean, Peter Cranston, Ros St Clair, Phil Suter, Cathy Yule** and **Alice Wells** are the guest speakers. Enquiries should be directed to the following people via e-mail:

Rosie Busuttil: foxylady@mdfrc.canberra.edu.au

Diane Crowther: dianec@mdfrc.canberra.edu.au
John Hawking: hawkingj@mdfrc.canberra.edu.au
or by telephone (060) 582300
or fax (060) 431626

The workshop has been extended to three days, to include an extra day with sessions on recent taxonomic research (Chironomidae and Plecoptera) undertaken for **Australian Water Technologies, Sydney**.

REGISTRATION: Participants must register, and include fee by **Friday 14 December 1996.**

COSTS: Registration Fees as per the registration form. Identification Guides will be produced for each session and are included in the registration cost. The guides from the workshop will be available for purchase by non-attendants.

CONFERENCE ENQUIRIES: John Hawking, MDFRC, PO Box 921, ALBURY 2640. Phone: 060-582300 or Fax: 060-431 626.

Orthopterists' Society
International Conference
Cairns
26-30 October 1997

The International Conference of the Orthopterists' Society will be held in Cairns, Queensland, Australia from 26-30 October 1997. Symposia will be held on a number of topics including Conservation and Biodiversity, Bio-control of Orthoptera, Orthopteran Biochemistry and Molecular Endocrinology and others.

Informative brochure from **Dr. D.C.F. Rentz,**
CSIRO Division of Entomology,
GPO Box 1700,
Canberra, ACT, 2601,
Australia,
Email: daver@ento.csiro.au.

ADVANCE NOTICE

Australian Entomological Society 1997 Conference and 28th AGM

28th September - 3rd October 1997
The University of Melbourne

The 1997 Annual Scientific Conference of the Australian Entomological Society will be held at Melbourne University 28 September to 3 October 1997. The Organising Committee so far, consists of Mark Smith, Robin Coy, Nancy Endersby and Fiona Clissold. Other committee members representing other Melbourne-based organisations will be added as needed.

Contact:
Nancy Endersby
Institute for Horticultural Development
Agriculture Victoria
Private Bag 15
South Eastern Mail Centre VIC 3176
AUSTRALIA
Telephone: (03) 9210 9222
Facsimile: (03) 9800 3521
E-mail: endersbyn@knoxy.agvic gov au

Further details will be available in a later issue of *Myrmecia*.

ANIC TRAINING COURSES

The Australian National Insect Collection, CSIRO Division of Entomology will be conducting the following training courses during 1997.

Thrips Identification Course
21-25 April 1997

A five-day course on the biology and identification of thrips will primarily familiarise participants with basic methods of collecting, slide preparation and identification. The course will also provide an introduction to thrips biology, trapping for pest management and DNA techniques for studying variation within and between species. Course Fee: $1,000

Whiteflies Identification Course
3-6 December 1996

An identification course on whiteflies (HEM: Aleyrodidae) and their natural enemies. The course will be conducted by experts from the ANIC and CABI's International Institute of Entomology (IIE). The course will cover basic biology and identification of whiteflies with particular emphasis on pest species and the Australian fauna. Course Fee: $1,000

Biology and Identification of Collembola
3-6 FEBRUARY 1997

A four day course on the identification of Collembola (springtails). Participants will be instructed in the morphology and most important characters for identification of the Australian fauna and provided with an illustrated key to the genera. The course will also provide an introduction to the biology of Collembola and there will be an opportunity to work on participants' own material if wished. Course fee: $500

All these courses will be held at the Division of Entomology in Canberra. Course fees do not include food and accommodation. Reasonably priced accommodation can be arranged at the participant's request.

Information from: Graham Crompton,
ANIC Collection Manager
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601, Australia
Internet: grahamc@ento.csiro.au
Fax: (06) 246 4264

THE OTHER 99%

The Conservation and Biodiversity of Invertebrates
Australian Museum, Sydney
9-12 December 1997

Details: *Myrmecia* **32**(3): 27
Mailing address and further details:
Australian Museum
Invertebrate Biodiversity Conference
6 College St
Sydney NSW 2000
Fax: 02 9320 6050
Email: invert@amsg.Austmus.oz.au

9TH INTERNATIONAL AUCHENORRHYNCHA CONGRESS
Sydney, Australia
17-21 February 1997

The Second Circular and Registration Form for this conference is now available. Copies can be obtained from:

Australian Convention and Travel Services
GPO Box 2200
Canberra ACT 2601
Australia

Ph: (61-6)(06) 257 3299
Fax: (61-6)(06) 257 3256
Further information:
Dr M.J. Fletcher
NSW Agriculture
PMB 10
RYDALMERE NSW 2116
email: fletchm@agric.nsw.gov.au

THE COMMERCIALISATION OF TRANSGENIC CROPS
Risk, Benefit and Trade Considerations
WORKSHOP
Canberra, Australia
11-12 March 1997

The Cooperative Research Centre for Plant Science and the Bureau of Resource Sciences.

Details: *Myrmecia* **32**(3): 27-28.

People with an interest in participating in the workshop are invited to contact **Mark Gibbs** or **George McLean**:

Mark Gibbs: Fax: 06 2465000
Phone: 06 2465455
Email: mgibbs@pi.csiro.au
George McLean: Fax: 06 2724896
Phone: 06 2724752
Email: GDM@mailpc.brs.gov.au

Workshop Secretary:
Ms Tanya Joce
RSBS, ANU
GPO Box 475
Canberra ACT 2601
Fax: 06 2494437
Email: joce@rsbs-central.anu.edu.au

FIRST NOTICE
3rd Brisbane Workshop on Soil Invertebrates
Brisbane
15-17 July 1997

Details: *Myrmecia* **32**(3): 28
For further information and registration notice
Contact: Peter Allsopp
BSES, Bundaberg
Phone: 071 593228
Fax: 071 593383
or Les Robertson
BSES, Tully
Phone: 070 681488
Fax: 070 681907
or John Rogers
CTPM, University of Queensland
Phone: 07 33651861
Fax: 07 33651855
Email: J.Rogers@ctpm.uq.edu.au

FEDERAL AND INTERNATIONAL SCIENTIFIC PERMITS:
a workshop for natural history museums and collectors
29-31 January 1997

Sponsored by the San Diego Natural History Museum and co-sponsored by the Association of Systematics Collections.
San Diego, California, USA

Details: *Myrmecia* **32**(3): 28-29

For further information and registration forms, please contact:

Sally Shelton
Director, Collections Care and Conservation
San Diego Natural History Museum
P. O. Box 1390
San Diego, California 92112
USA
Phone: 0011 1 619 232-3821
Fax: 0011 1 619 232-0248
Email: LIBSDNHM@CLASS.ORG

Details of Permit requirements and contact organisations for Australia are available at: http://155.187.10.12/anbg/collecting.html

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Xth INTERNATIONAL CONGRESS OF ACAROLOGY
6-10 July 1998
Canberra, Australia

Further Information:
Dr Bruce Halliday
Principal Research Scientist (Acarology)
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601
AUSTRALIA
Phone: (06) 246 4911
Fax: (06) 246 4000
Email: bruceh@ento.csiro.au

Fourth Conference of the International Society of Hymenopterists.
Canberra, AUSTRALIA
6-11 January 1999
Details: *Myrmecia* **32**(1): 28
The Conference address and contact is:
4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

SOUTHERN CONNECTION

II CONGRESS
"Southern Temperate Biota and Ecosystems: Past, Present and Future."
6-11 January 1997
Chile, South America

Details: *Myrmecia* **31**(4): 40
Further details:
Ignacio Fuenzalida
Local Organiser
II Southern Connection Congress
Depto. de Biologia - Facultad de Ciencias
Universidad de Chile, Casilla 653
Santiago, CHILE
Fax: 65 (2) 271 2983
Email: Southern@abello.dic.uchile.cl
or Botanica@abello.dic.uchile.cl

Please include your name, postal address, fax, telephone number and email address as appropriate.

NEW PUBLICATIONS

Backyard Insects

by Paul Horne and Denis Crawford. (1996) Melbourne University Press. Paperback 185 x 200mm. 248pp. $24.95.

- A colourful and informative guide to the insects that share our homes and gardens.
- Fun tips, facts and ideas for getting to know friendly insects
- How to deal with poisonous creatures
- 120 gorgeous full-colour pictures of beetles, bugs, bees and butterflies
- The first definitive family guide to Australia's urban insects

Trade Enquiries: Penguin Books (03) 9871 2400.
Other Enquiries: Melbourne University Press (03) 9347 3455

BOOK REVIEWS

"Click Beetles: Genera of the Australian Elateridae (Coleoptera)." *Monographs on Invertebrate Taxonomy* Vol. 2. by Andrew A. Calder. 1996. CSIRO Australia. 401pp. $130.

The most cursory glance at this handsome, hard-cover volume, with its high quality gloss paper and outstanding illustrations and SEMs generates an immediate wish for its possession. In-depth study confirms the initial response. 70 genera and some 660 species are dealt with, the new genera and synonymies proposed are too numerous to list here, and lectotypes have been designated for 27 previously described species.

The introductory chapter of this book could preferably have begun with its last sentence, in which the author states the purpose of his study - the redescription of all Australian elaterid genera,

the description of new genera, the assignment of described species to existing and new genera and the provision of a key to genera. The economic importance of elaterids which are normally assigned pest status is therefore mentioned only briefly, but is referred to again in comments on the biology of those species concerned. The author gives there appropriate references to publications dealing with the pest species he names.

The introduction then provides a general description of adult and larval forms, together with their habits and their morphological attributes, moving on to definition of the family and related families. An historical review is then presented, giving extensive references to earlier publications, followed by comments on higher classification.

The author states that he had based his classification on eight subfamilies which, in turn "are based on those of the Russian authors". He goes on to say that the definition of these subfamilies is not as precise as he would prefer, giving very brief mention of some of the characters concerned, although more detail is provided under the relevant subfamily section.

The following chapter on materials and methods includes brief and precise notes on measurement methods and taxonomic procedure used in defining generic limits. A chapter on morphology then deals very extensively and clearly with characters the author has employed in his generic descriptions. In the sections on legs and on male and female genitalia, two genera, *Cussolenis* and *Drapetes*, are referred to on a number of occasions, with all the figure references being unfortunately either incorrect or transposed.

The fifth chapter is comprised of a 59-couplet key, covering all genera listed. Figures which show the distinctive characters referred to in the key are scattered throughout the book. I would much prefer to have seen these immediately adjacent to the key, as in Arnett (1971), which would make determinations a great deal less tedious for users largely unfamiliar with elaterids. I found some difficulty when running a number of specimens through the key, primarily in making decision concerning details of the tarsomeres, which carry important diagnostic features. This was despite SEMs provided to illustrate these details. It was disappointing to find that the key also contains further transpositions and errors concerning figure references. These occur in couplets 16 and 18-22. They require the issue of an addendum.

The remainder, and much the greater part, of the book is taken up with the systematics of the family. The author notes that, as with most Coleoptera, the larval forms are poorly known, generic descriptions thus being restricted to adults. These are grouped into subfamilies, each of which is given a general description, with substantial reference to those genera displaying the characters listed. A list of the genera included in the subfamily follows.

Each genus is then dealt with in extensive detail, reflecting a wide-ranging volume of study by the author over a long period. Illustrations of the highest quality are provided, showing the dorsal and sometimes ventral habitus of at least one species of each genus, together with numerous SEMs illustrating diagnostic characters of importance. Fully detailed description is given of all external body parts, and of male and female genitalia, both of which are illustrated with line drawings of a high standard. Geographical distribution, a list of species included in the genus, together with type localities and the biology, when known, are then added. Qualifying comments follow where the author considers them to be necessary. The book concludes with a list of 13 unplaced and three excluded species, followed by a complete bibliography and an excellent index.

This monograph represents an outstanding effort of scientific scholarship and deals with its subject in detail and thoroughness to a degree with which I have not met previously. Considering the extent of the work and the standard of its presentation, the price of $130 is quite reasonable. The book should be a "must have" for institutions and for professional and amateur entomologists concerned with Coleoptera in any way. It can be considered an exemplar of how the results of taxonomic research should be presented. The unfortunate editorial errors should be quickly corrected and forgotten.

References

Arnett, R.H. Jr. (1971). "The beetles of the United States". The American Entomological Institute.

Don SCAMBLER
Dept of Entomology
The Australian Museum
Sydney

"Grasshopper country - the abundant orthopteroid insects of Australia". by **D.C.F. Rentz** (1996). University of New South Wales Press, Kensington. 283 pp.+ 82 p. colour plates. Hardcover $69.95 (Special ANIC Hardcover release with audio CD $79.95).

With the release of this new publication Australia has an excellent text for anyone with a passing interest in grasshoppers, katydids, mantids, stick insects and cockroaches. This book is really great! It is not a dry taxonomic treatise for the professional to purchase out of "sense of duty" to the discipline and then relegate to an inaccessibly high shelf in their library. No way! This is a "living" book, a hybrid between a glossy coffee table book, a textbook and a zoological catalogue and, with the inclusion of an audio CD-ROM, an experience. A valuable addition to the book collection of everyone with a natural history bent.

The upbeat layout of the book will appeal to the "naturalist", or the "student" and the "professional". The layout is superb and cynics would suggest this is a finely veiled attempt to capture the attention of the many people with an entomological interest to enlarge the ranks of orthopterists, both in Australia and overseas. (Don't forget David is President of the Orthopterists' Society and might be surreptitiously trying to increase membership and the number of delegates attending next year's conference in Cairns!)

The publication is multi-layered, making information available to the reader in accordance with their level of interest. At first glance, the reader will see the many coloured plates, the black and white SEMs and figures. Further, investigation will uncover technical notes on photography, collecting, preserving and breeding of orthopteroid insects, and the reader can go deeper to obtain a general introduction to each the orders and superfamilies. In addition, there is further depth with detail on the classification of the orders including taxonomic keys to sub-families and tribes. Finally, investigation will provide the reader with a description of the biology of representative species of each tribe. The publication is an interesting journey into this group of insects; it is a "Eurailpass to the Orthopteroid Insects" allowing each reader to get on or off wherever they like, staying at each destination as long as they like. Obviously, it will be an individual and varied experience!

A review would not be complete without comment on the graphics in the new publication! A thesaurus at hand contained no superlatives which adequately described the quality of the photographs, nearly all of which were taken by the author. Where can we get posters of spotted predatory katydid (*Chorobalius leucoviridis* Tepper) or superb katydid (*Alectoria superba* Brunner) to hang on the lab wall? The book caters for all tastes with a macabre photo taken by **John Balderson** of a decapitated male praying mantis (*Heirodula atricoxis* Wood-Mason) copulating with a satiated female. (To make matters worse he even captured the self-satisfied smirk on her face!) It was gratifying to see some of the excellent photographs of acridids taken by **Bob Lewis** over the last 3 decades published and, finally, in the black and white category, the photo of the Skilton boys is very 1950's in both content and sentiment.

Murray Upton in the foreword states he hopes the book will stimulate a new generation of orthopterists. The recent or imminent retirement of many contemporaneous colleagues certainly forebodes an alarming need.... It is amazing how a young mind will grasp a publication of this nature and become almost obsessed with the subject matter and even the smell and feel of the book itself. Just ask any lepidopterist over 40 what Waterhouse's "What Butterfly is that?" meant to them in their formative years. On examination, all should agree that this publication will certainly strike the mark for budding orthopterists.

In summary, get your copy NOW!

Graeme BAKER and
John MACDONALD
NSW Agriculture

NOTICES

NSW Threatened Species Conservation Act
WANTED: INSECT NOMINATIONS!

Under the new NSW Threatened Species Conservation Act, insects and other invertebrates are at last officially animals! Eligibility for threatened species status protection has been extended to the whole of the animal kingdom. This represents a great opportunity for insect conservation in NSW.

Endangered or vulnerable insect species, populations and even whole ecological communities can be nominated for listing under the Act. Once listed, the National Parks and Wildlife Service is obliged to undertake measures to ameliorate threats to existence. Nominations are considered, on merit, by a Scientific Committee. The Australian Entomological Society is represented on the Scientific Committee by **Robin Gunning**.

Already, three insect species have been placed on the endangered list. They are *Synemon plana* (Golden Sun Moth), *Paralucia spinosa* (Bathurst Copper Butterfly) and *Dryococelus australis* (Lord Howe Island Phasmid). However, there are many other rare insect and invertebrate species, populations and communities in NSW, which face extinction, due to various threats.

In order to protect our insect biodiversity, the Scientific Committee urgently needs nominations from you, Australia's entomologists. Nomination forms and assistance in preparing nominations can be obtained from:

Robin Gunning
Tamworth Centre for Crop Improvement
RMB 944 Calala Lane
TAMWORTH NSW 2340
Ph (067) 631128
Fax (067) 631222

NEW SCIENTIFIC SOCIETY

SOCIETY OF AUSTRALIAN SYSTEMATIC BIOLOGISTS

A new scientific society was formed on the 4th October in Melbourne to represent the interests of systematic and evolutionary biologists in Australia. The Society will hold regular conferences/symposia, foster systematics as a discipline and the training of systematists, and act to lobby government agencies and funding organisations that are involved or have interests in systematics, biodiversity, conservation, etc. The Society will hold its first conference in the latter part of 1997 in Adelaide, jointly with the Australian Systematic Botany Society (see separate notice).

All communication within the Society will be by email. It is not intended to have a scientific journal as there are already numerous outlets in existence. Presently the Society is FREE to join, although a small membership fee will be introduced sometime in the future. To join, all you have to do is email **Mike Crisp** at ANU (Mike.Crisp@anu.edu.au).

JOB ADVERTISEMENT
Manaaki Whenua - Landcare Research
Mount Albert Research Centre, Auckland

Insect Systematists (two positions)

Landcare Research conducts biosystematics research on New Zealand's land invertebrates using its extensive collections, databases, library, and laboratory resources.

We seek two systematists to join our biosystematics team based at Mount Albert, Auckland. The appointees will have proven skills in insect systematics, including the preparation of taxonomic revisions. They should be conversant with the use of cladistic methodologies, and appreciate the scope and application of molecular techniques. Experience in biodiversity assessment and species conservation would be an asset. The major research focus will be on either Coleoptera (position 1) or Lepidoptera (position 2). The appointees will have a PhD or equivalent in invertebrate systematics and experience in field work and database use. They will be expected to work in a project-orientated team environment. In addition to conducting research in systematics and biodiversity, the appointees will have responsibilities for collection development, routine identifications, and related consultancies.

Applications close on 30 November 1996. For further information contact

Dr Ross Beever
Landcare Research,
Private Bag 92 170,
AUCKLAND, New Zealand
telephone +64-9-849 3660
Fax +64-9-849 7093
E-mail BeeverR@landcare.cri.nz.

The position description may be obtained from, and applications sent to:

Personnel Officer
Biodiversity and Conservation
Manaaki Whenua - Landcare Research
P O Box 69
LINCOLN, New Zealand

JOB ADVERTISEMENT
ENTOMOLOGIST
(INTEGRATED PEST MANAGEMENT - ORNAMENTAL INDUSTRIES)

The Institute: The Institute for Horticultural Development (IHD) has 170+ scientific, technical and support staff. Our mission is to improve and sustain the competitiveness of Australia's horticultural industries by delivering effective scientific services and technologies. IHD embraces a team approach to its work and is structured around four main groupings: Product Development, Plant Health, Industry Development and Institute Services.

The Person: The successful applicant must be highly qualified with extensive experience in integrated pest management. Well developed leadership and management skills of science-based teams are expected and an ability to work in an innovative environment where change, customer focus and a philosophy of continuous improvement is critical.

The Position: The role is to lead, supervise and manage the research, personnel and resources of the Integrated Pest Management Team and ensure the effective delivery of R&D projects to the Ornamentals industry. Provide vision in conceiving and developing new projects for industry consistent with Government and IHD's strategic objectives. Foster team development and group linkages within the department and with other organisations. Provide scientific, technical and policy advice to IHD management as required. Actively liaise with clients to ensure customer satisfaction.

Qualifications: It is mandatory that you have an appropriate degree in Science, Agricultural Science, preferably complemented by a PhD with a focus towards integrated pest management.

The Salary: The salary range is between $41777 - $58916. The position is for a fixed term period of five years at the VPS-4 level. The successful applicant will generally be employed at or near the base of the range, with progress through annual performance.

Position No.: NRE244446 (Team Leader, IPM, Ornamentals)

Applications: Written applications quoting the position number with details of qualifications, experience and business hours contact telephone number should be forwarded to:

Recruitment Officer,
IHD, Private Bag 15,
South Eastern Mail Centre VIC 3176
by close of business on Friday December 13

Further Information: For further information and full duty statement contact Lorraine Wibrow on (03) 9210 9222.

The successful applicant will be required to enter into an employment contract. Recipients of VPS Departure Packages should note that re-employment restrictions apply. the Department is an equal opportunity employer and has a smoke-free workplace policy.

Department of
Natural Resources and Environment
AGRICULTURE · RESOURCES · CONSERVATION · LAND MANAGEMENT

REQUEST FOR *TRIBOLIUM*

Bill Ballard, Mike Wade, and I are working in a phylogenetic study of *Tribolium* and would like to receive specimens of this genus from Australia and Madagascar, particularly from natural settings (as contrasted to the common stored product species).

Specimens should have been collected recently, placed in ethanol, and have full collection data.

In Australia, some species are associated with ant nests. Specimens from other parts of the world also appreciated. Many thanks.

Jorge A. Santiago-Blay
Department of Ecology and Evolution
The University of Chicago
Chicago, IL 60637
USA

1996 Listing of Postgraduate Projects in Entomology AN AUSTRALIAN SURVEY PART II

Introduction

This is the addendum to the list of 1996 Postgraduate projects in Australian Entomology which was published in the August issue of *Myrmecia*. In total the survey comprised 223 Postgraduate Projects. It is hoped that this list provides valuable information on the current status of postgraduate research in Australian entomology. Thanks are due to all Regional Councillors (and others) who assisted in the collection of material.

Gary TAYLOR

NEW SOUTH WALES

Macquarie University
School of Biological Sciences
(Assoc/Prof Dinah Hales)

KNIHINICKI, DK (MSc) Taxonomy, biology and ecology of phytophagous Eriophyoidea associated with native teatrees.

NEWMAN, AKL (PhD) Biology of the fig psyllid on Moreton Bay fig trees.

TERRAS, MA (PhD) Biology and ecology of the red pepper mite in mushroom cultivation.

CRUSE, A (PhD) Termite defences against microbial pathogens.

OSLER, G (PhD) Soil mite communities associated with different tree species.

University of New England
Department of Zoology
(Dr Mary Notestine)

HARRIS, K (PhD) Mutant analysis of sensory axon pathfinding in the *Drosophila* embryo.

HOLTKAMP, RH (PhD) Population ecology of flower head insects on *Senecio madagascariensis* and the closely related *Senecio lautus* complex.

MURRAY, M (PhD) In vivo dynamics of axon pathfinding in the *Drosophila* embryo.

NAGAHAULLA, S (PhD) Ecology of three mite species on tea, *Camellia sinensis*.

SURATMAN (MSc) The effects of herbicides and insecticides on soil fauna.

WANG, S-Y (PhD) Development of central projections by sensory neurons in the *Drosophila* embryo.

WHITELAW, S (PhD) Litter fauna in old growth, regrowth and plantation forests.

WESTERN AUSTRALIA

Curtin University of Technology
(Assoc/Prof Jonathon Majer)

NOACK, A (Hons) The effects of habitat degradation on the litter and bark invertebrates of shrubland communities, with special reference to the White-browed babbler.

SZITO, A (MSc) Revision of the Australian beetle genus, *Trogoderma* Berthold.

HOULDING, B (M.Sc.) Integrated pest management in strawberry crops in Western Australia.

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

FORM OF NOMINATION FOR MEMBERSHIP

To be returned to:
Dr G. Taylor, AES Secretary, c/o Dept. of Crop Protection
Waite Campus, University of Adelaide, Glen Osmond SA 5064

We the undersigned

Proposer: . . . . . (print name here) . . . . . (signature)

Seconder: . . . . . (print name here) . . . . . (signature)

being financial members of the Society, propose the following for membership of The Australian Entomological Society Inc.:

Title . . Initials . . Given Name . . . . . Family Name . . . . . .

of (Address): . . . . . .

. . . . . .

Tel: . . . . . Fax: . . . . . .

Email: . . . . . Degrees, etc: . . . . . .

Occupation or Appointment: . . . . . .

Interests, experience, and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé):

I accept nomination and undertake if elected to abide by the rules of the Society, and to pay annual subscriptions by the date prescribed.

Signature: . . . . . **Date:** . . . . . .

For **1996**, new student/retired members - $25.00; new full members - $55.00. **Payment with nomination required.** (NB. These rates only apply for new memberships.

. . . . . .

(EXECUTIVE USE ONLY)

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Payment received: . . . . . Elected at meeting: . . . . . .

Membership type: . . . . . Applicant advised: . . . . . .

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